
Chapter 8 — Service changes and maintenance

Introduction

This chapter describes how to administer the Option 11 ISDN BRI feature and how to identify and clear faults related to it. It includes ISDN BRI equipment replacement procedures.

Before proceeding you should have a basic knowledge of the Option 11 ISDN BRI feature (described in this guide) to be able to administer it. To clear ISDN BRI related faults, you should have a basic knowledge of fault indicators, diagnostic tools and fault clearing methods as described in the Option 11 *Fault clearing guide* provided with the Option 11 system.

ISDN BRI maintenance commands

Maintenance commands

Maintenance commands are used to manipulate the status and perform diagnostic tests on specific circuit cards and DSLs. The main role of these commands is to disable the card you plan to test, to perform the specified tests, and to enable the card.

Table 20 lists the ISDN BRI specific commands and their associated diagnostic programs. A complete list of diagnostic commands is included in the *X11 Software guide Including Supplementary Features* provided with the Option 11.

Table 20
Maintenance commands

Command	Description	Program
DIS CC x	Disable system clock controller (0 or 1)	LD 60
DISC BRIL c	Disables the ISDN BRI line application on MISP c	LD 32
DISC BRIT c	Disables the ISDN BRI trunk application on the MISP located in card slot c	LD 32
DISC BRIT c REM	Disables and removes the application loadware for the ISDN BRI trunk application on the MISP located in card slot c	LD 32
DISC c	Disables the card in slot c	LD 32
DISI c	Disables the card in slot c when idle	LD 32
DISU c dsl#	Disables the DSL in card slot c dsl#	LD 32
DISS s	Disable shelf s (0 for main cabinet, 1 for expansion cabinet)	LD 32
DSCK loop	Disables the clock for loop	LD 60
DSRB c dsl#	Remove the ISDN BRI trunk on card c dsl# from remote loop back mode	LD 32
DSTS c dsl#	Remove the ISDN BRI trunk on card c dsl# from test mode	LD 32
DSYL loop	Disables yellow alarm processing for loop	LD 60
ENL CC x	Enable system clock controller x	LD 60
ENCK loop	Enable clock for loop	LD 60
ENLC BRIT c	Enables the ISDN BRI trunk application on the MISP located in card slot c	LD 32
ENLC BRIT c FDL	Enables and force downloads the application loadware for the ISDN BRI trunk application on the MISP located in card slot c	LD 32

Table 20
Maintenance commands

Command	Description	Program
ENLC BRIL c	Enables the ISDN BRI line application on MISP c	LD 32
ENLC c	Enables the card in slot c	LD 32
ENTS c dsl#	Set the ISDN BRI trunk on card c dsl# in test mode for loop back test	LD 32
ENLS s	Enable shelf s (0 for main cabinet, 1 for expansion cabinet)	LD 32
ENLU c dsl#	Enables the DSL in card slot c dsl#	LD 32
ENRB c dsl#	Set the ISDN BRI trunk on card c dsl# in remote loop back mode	LD 32
ENYL loop	Enable yellow alarm processing for loop	LD 60
EREF	Enable automatic switchover of system clocks	LD 60
ESTU c dsl#	Establish a D-channel link on card c dsl#	LD 32
IDC c	Displays the MISP card ID number, the loadware version for the MISP base code and all resident applications on the Flash ROM for the MISP in card slot c	LD 32
LBSY s	List busy units on shelf s (0 for main cabinet, 1 for expansion cabinet)	LD 32
LDIS s	List disabled units on shelf s (0 for main cabinet, 1 for expansion cabinet)	LD 32
LIDL s	List idle units on shelf s (0 for main cabinet, 1 for expansion cabinet)	LD 32
LMNT s	List maintenance busy units on shelf s (0 for main cabinet, 1 for expansion cabinet)	LD 32
MREF	Disable switchover of system clocks	LD 60
PCON c dsl#	Print the configuration parameters for the ISDN BRI trunk on card c dsl#	LD 32

Table 20
Maintenance commands

Command	Description	Program
PERR c	Print the error log for the MISP or ISDN BRI card c	LD 32
PLOG c dsl#	Print the protocol log for the ISDN BRI trunk on card c dsl#	LD 32
PMES c dsl#	Print layer 3 message log for the ISDN BRI trunk on card c dsl#	LD 32
PTAB c dsl# <tbl#>	Print layer 3 message configuration table for the ISDN BRI trunk on card c dsl#	LD 32
PTRF c dsl#	Print the traffic report for the ISDN BRI trunk on card c dsl#	LD 32
RLBT c dsl#	Start remote loop back test on ISDN BRI trunk on card c dsl#	LD 32
RLSU c dsl#	Release the D-channel link on card c dsl#	LD 32
STAT BRIL c	Query the status of ISDN BRI line application	LD 32
STAT BRIT c	Queries the status of the ISDN BRI trunk application on the MISP located in card slot c	LD 32
STAT c	Queries the status of card in slot c	LD 32
STAT c dsl#	Queries the status of a DSL on card c dsl#	LD 32
SLFT c	Performs self-test on the SILC or UILC in card slot c	LD 32
SLFT c <1,2>	Performs self-test on the MISP card c, type 1 or 2 Type 1 test is a comprehensive test Type 2 test is a power-on/reset test Response NWS632 indicates self-test failed Response NWS637 indicates self-test passed	LD 30
SSCK x	Get status of system clock x	LD 60
SWCK	Switch system clock from active to standby	LD 60

Table 20
Maintenance commands

Command	Description	Program
TEIT c dsl#	Performs TEI test on card c dsl#	LD 30
TRCK aaa	Set clock controller tracking to primary, secondary or free run	
XCON0 H (0-182) M (0-59) S (0-60)	Performs loopback test from the MISP to an SILC or UILC that checks the signaling channel. It does not test the SILC or UILC but only the peripheral bus interface and backplane connectors. 0 = performs only one loopback test H, M, S = performs loopback test for the number of hours, minutes, or seconds entered	LD 45
TEIT c dsl#	Performs TEI test on card c dsl#	LD 30

MISP and SILC/UILC message monitoring commands

Link Diagnostic Overlay Program 48 (LD 48) is used to monitor and print messages sent and received by the MISP, SILC, and UILC cards.

These commands are used to monitor ISDN BRI activity during normal system operation and to facilitate system maintenance.

Table 21 lists LD 48 commands and functions.

Table 21
MISP and SILC/UILC message monitoring commands

LD 48 Command	Command Description
SETM MISP <card #> DBG	Activates the debug option on the MISP
SETM MISP <card #> MON	Activates the printing option for incoming and outgoing messages for the MISP
SETM MISP <card #> MNT	Prints status messages for the MISP.
SETM MISP <card #> AMO	Activates sending audit messages from the CPU to the MISP
SETM MISP BRIM <number>	Prints input/output messages form the CPU to the MISP and SILCs/UILCs and from these cards back to the CPU
SETM TNx c dsl#	Activates printing of messages for a specified DSL
SETM TNx c 31	Activates printing of messages for a specified ISDN BRI card
RSET MISP <card #> DBG	Resets the command for debug option
RSET MISP <card #> MON	Resets the command for monitor option
RSET MISP <card #> MNT	Resets the command for printing maintenance messages
RSET MISP <card #> AMO	Resets the command for audit option
RSET MISP BRIM	Resets the command for printing messages for a DSL or line card
RSET TNx	Resets the command for printing of messages for a specified DSL
RSET ALL	Resets the command for a group of commands

Changing, removing and printing an LAPD protocol group

The following table gives the prompts and responses used to change, remove and print LAPD protocol groups.

LD 27— Changing a protocol group

Prompt	Response	Comment
REQ	CHG	Change an ISDN/BRI component
TYPE	LAPD	LAPD Protocol group
PGPN	0-15,<cr>	Protocol group number The values for this prompt are: 0-15=Changes a specified protocol group from 0-15. Only one group can be changed at the time. <cr>=No change to the value at the prompt
LAPD	YES, (NO)	LAPD parameters The values for this prompt are: YES=Define or modify the LAPD parameters NO=Does not display the LAPD parameters.
T200	(2)-40	Retransmission timer specifies the time delay before the system retransmit the information. Delay is in increments of 0.5 seconds.
T203	4-(20)-80	Maximum time between transmission frames Delay is in increments of 0.5 seconds.
N200	1-(3)-8	Maximum number of retransmissions of unsuccessfully transmitted information.
N201	4-(260)	Maximum number of contiguous octets or bytes of information.
K	(1)-32	Maximum number of outstanding negative acknowledgment (NAKs) allowed before alarming the system.
N2X4	1-(10)-20	For 1TR6 connectivity — number of status inquiries when the remote station is in peer busy state.

Removing an LAPD protocol group

You can remove a previously configured LAPD protocol group that is not currently assigned to a DSL. If a protocol group is assigned to a DSL, you must delete the DSL before removing the protocol group. You can also remove all protocol groups not assigned to DSLs by entering ALL at the PGPN prompt.

LD 27— Removing a protocol group

Prompt	Response	Comment
REQ TYPE PGPN	OUT LAPD 0-15,ALL, <cr>	Remove an ISDN/BRI component Protocol group Protocol group number The values for this prompt are: 0-15=Removes a specified protocol group from 0-15 ALL=Removes all protocol groups <cr>=No change, i. e. the protocol group doesn't get removed. You cannot remove a protocol group if it is assigned to a DSL or a route.

Printing a protocol group

You can print the configuration information for a specific protocol group or for all protocol groups.

LD 27— Printing a protocol group

Prompt	Response	Comment
REQ TYPE PGPN	PRT LAPD 0-15,<cr>	Prints an ISDN BRI component Protocol group Protocol group number The values for this prompt are: 0-15=Prints a specified protocol group from 0-15 <cr>=Prints all protocol groups and the number of DSLs in each group

Changing, removing and printing an MISP

Changing an MISP

You can change voice and data handling status of an MISP. You can remove packet data handling from an MISP or change the PRI card slot and channel assigned for packet data transmission. To do this, first disable the MISP using the DISC c command in Diagnostic Program LD 32. After you completed the service changes, enable the MISP using ENLC c command. If you do not wish to change a parameter, press the Enter key and the next prompt will appear.

LD 27 — Changing a MISP

Prompt	Response	Comment
REQ	CHG	Change an ISDN BRI component
TYPE	MISP	MISP
LOOP	1-9	MISP card slot number
APPL	(BRIL) BRIT XBRIL, XBRIT	ISDN BRI line or trunk application XBRIL, XBRIT to remove Must remove all SILC/UILC before application can be removed
PH	DCH,BCH, BDCH,X	Packet handler The values for this prompt are: DCH=D-channel communicates with packet handler BCH=B-channel communicates with packet handler. If this capability is removed, a warning will be displayed. BDCH=Both D-channel and B-channel communicate with packet handler X=Removes packet data transmission option. All PRI trunks must be removed before B-D-channel can be removed. <cr>= No change, following prompts will not appear. If you select DCH or BDCH, DSL#7 on the last (4th) line card cannot be used.
PRI	c	PRI card slot number The PRI card is connected to the external DPN packet handler by the carrier cable. The card must have already been added using Configuration Record Program LD 17.

Prompt	Response	Comment
CH	1-23 1-30	PRI 1.5 Mb (1-23) or PRI 2 Mb (1-30) channel number This channel carries B _D -channel packet data. To change this parameter, first disable the MISP. This prompt appears only if you selected DCH or BDCH for the PH prompt.

Removing an MISP

You can remove an MISP by specifying its card slot number. Before you can remove the MISP, you must remove all DSLs connected to SILCs and/or UILCs that are associated with the MISP.

LD 27 — Removing a MISP

Prompt	Response	Comment
REQ TYPE LOOP	OUT MISP 1-9	Remove an ISDN BRI component MISP Card slot number The MISP must be disabled before removing it. All SILC and/or UILC DSLs associated with the MISP must be removed before removing the MISP. Refer to <i>Removing an SILC or UILC</i> in this chapter.

Printing an MISP

You can print the configuration information for an MISP by specifying its card slot number.

LD 27 — Printing a MISP

Prompt	Response	Comment
REQ TYPE LOOP	PRT MISP 1-9 <cr>	Prints an ISDN BRI component MISP Card slot number If you do not know the MISP card slot number, use Print Program LD 22 to print out the system configuration. <cr>=print all MISPs in the system

Changing, removing and printing an SILC or UILC

Changing an SILC or UILC

You can change a card type and the MISP card slot number with which the SILC or UILC is associated. Before changing the SILC or UILC, you must disable the card by executing the **DISC c** command in Diagnostic Program LD 32. If you do not wish to change a parameter, press the Enter key and the next prompt will appear.

LD 27 — Changing an SILC or UILC

Prompt	Response	Comment
REQ	CHG	Change an SILC or UILC line card
TYPE	CARD	SILC or UILC line card
TN	1-20	Card slot location The values for this prompt are 1-20 Remove any DSLs that are configured for this line card before changing the line card.
MISP	1-9	MISP card slot number ISDN BRI applications on the MISP must be disabled when changing the MISP card number. The SILC or UILC must be disabled before changing the MISP card slot number.
CTYP	SILC,UILC	Card type

Removing an SILC or UILC

You can remove an SILC or UILC by specifying its card location. Before you can remove the SILC or UILC, you must first remove all configured DSLs from the card by using the *Removing a DSL* procedure. When you remove the last DSL, you automatically delete the card.

When you remove (OUT) the card, you also delete its database information from the data block. Print Program LD 20 can be used to list the cards that are configured.

LD 27 — Removing an SILC or UILC

Prompt	Response	Comment
REQ TYPE TN	OUT CARD 1-20	Remove an SILC or UILC line card SILC or UILC line card Card slot location The values for this prompt are 1-20 Remove any DSLs that are configured for this line card before removing the line card.

Printing an SILC or UILC

You can print the configuration information for an SILC or UILC by specifying its card location.

LD 27 — Printing a SILC or UILC

Prompt	Response	Comment
REQ TYPE TN	PRT CARD 1-20 <cr>	Print an ISDN BRI component ISDN BRI line card Used to print the data of a specific card To print all SILC and UILC in the system

Changing or Removing a DSL**Changing a line DSL**

You can change the characteristics of a line DSL by changing one or more parameters to adapt it to new transmission or feature requirements. If you wish to skip a parameter, press the Enter key and the next prompt will appear.

Note: The DSL must be idle or disabled before proceeding. Use the STAT c and DISU c dsl# commands in LD 32 to query the status of the DSL and to disable it.

LD 27 — Changing a line DSL

Prompt	Response	Comment
REQ	CHG	Change a DSL
TYPE	DSL	DSL
DSL	cc dsl#	DSL location The values for this prompt are: cc (card)=1-20 dsl# (DSL number)=0-7
DES	x...x,<cr>	DES designator The values for this prompt are: x...x=1 to 6 alphanumeric designator <cr>=No change
APPL	BRIL	ISDN BRI line application
CUST	0-99	Customer number
CTYP	SILC, UILC	Card type Note: This prompt is displayed only if the SILC or UILC has not been previously configured, or if another DSL has not been configured on the same SILC/UILC.
MISP	1-9	MISP card slot number This prompt is displayed only if the MISP has not been previously assigned to the specified SILC or UILC.
MODE	NTAS,NTFS	Network terminal line sampling mode The values for this prompt are: NTAS=Adaptive sampling Extended passive bus, Branched passive bus, Point-to-point bus, U interface DSL NTFS=Fixed sampling Short passive bus NTAS, NTFS response valid only if APPL=BRIL TE, NT response valid only if APPL=BRIT This prompt is displayed only if you specified the card type as SILC. Note: Cannot change from TE to NT if the clock on the DSL is referenced in the Digital Data Block or the 2 Mb DTI/PRI system data. The reference must first be removed. If mode is changed to NT, CLOK will reset to NO.

Prompt	Response	Comment
B1CT	VCE DTA PMD XVCE XDTA XPMD	B-channel 1 call type The values for this prompt are: VCE=Adds circuit switched voice. DTA=Adds circuit switched data PMD=Adds packet mode data (B-channel packet data must have been specified in the <i>MISP configuration procedures</i>). XVCE=Removes circuit switched voice XDTA=Removes circuit switched data XPMD=Removes packet mode data (B-channel packet data must have been specified at the PH prompt in the <i>MISP configuration procedures</i>) You can enter more than one B-channel call type by separating each entry with a space. You cannot select PMD simultaneously with VCE and/or DTA.
B2CT	VCE DTA PMD XVCE XDTA XPMD	B-channel 2 call type The values for this prompt are: VCE=Adds circuit switched voice DTA=Adds circuit switched data PMD=Adds packet mode data (B-channel packet data must have been specified at the PH prompt in the <i>MISP configuration procedures</i>) XVCE=Removes circuit switched voice XDTA=Removes circuit switched data XPMD=Removes packet mode data You can enter more than one B-channel call type by separating each entry with a space. You cannot select PMD simultaneously with VCE and/or DTA.
LDN	0-3,NO	Departmental listed directory number The values for this prompt are: 0-3=Listed directory number 0, 1, 2, or 3 specified in Customer Data Block Program LD 15 NO=No listed directory number associated with this DSL
XLST	0-254	Pretranslation group. This prompt comes up if configured in customer data block
MTEI	1-(8)-20	Maximum number of Terminal Endpoint Identifiers Both static and dynamic combined.

Prompt	Response	Comment
LTEI	n1 n2 m <cr>	Note: A response to this prompt is only required for packet data implementation. The Logical Terminal Endpoint Identifier(LTEI) is used to address D-channel packet data terminals. LTEI consists of two components: n1 and n2 = Logical Terminal Identifier (LTID) m = Static Terminal Identifier (TEI) The maximum number of Logical Terminal Endpoint Identifiers (LTEIs) that can be configured is defined above by the prompt MTEI. The ranges for all entries are: n1 = Logical Terminal Group (LTG) = 1-15 n2 = Logical Terminal Number (LTN) = 1-1023 m = Static TEI = 0-63 Note: LTG=15 and LTN=1023 is an invalid combination. Xm=Deletes LTID and TEI as a pair for the specified TEI.
MCAL	2-(16)-32	Maximum number of calls per DSL
MTSP	1-(8)-16	Maximum number of TSPs Can be changed to a smaller number only if the TSPs defined for this DSL do not exceed this number. If they do, remove all extra TSPs before changing the maximum number of TSPs.
PGPN	0-15	Protocol group number The protocol group must be previously added.
PRID	1-5	Protocol ID The values for this prompt are: 1=ANSI 2=ETSI NET3 3=DMS 4=INS NET64 5=Numeris
PDCA	(1)-16	PAD TABLE # — only prompted if PRID=ETSI NET3, INS NET64 or Numeris
FDN	n...n Xn...n	Flexible CFNA directory number Enter a directory number from 1 to 13 digits long. Enter Xn...n to delete the parameter.

Prompt	Response	Comment
EFD	n...n Xn...n	Flexible external call CFNA directory number Enter a directory number from 4 to 13 digits long. Enter Xn...n to delete the parameter.
HUNT	n...n Xn...n	Hunt directory number Enter a directory number from 4 to 13 digits long. Enter Xn...n to delete the parameter.
EHT	n...n Xn...n	Hunt external call directory number Enter a directory number from 4 to 13 digits long. Enter Xn...n to delete the parameter.
TGAR	0-31	Trunk group access restriction
NCOS	0-99	Network class of service
CLS	(UNR) TLD SRE FRE CUN CTD FR1 FR2 (UDI) RDI (MRD) MRA	Class of service access restrictions The values for this prompt are: UNR=Unrestricted TLD=Toll denied SRE=Semi-restricted FRE=Fully restricted CUN=Conditionally unrestricted CTD=Conditionally toll denied FR1=Fully restricted class 1 FR2=Fully restricted class 2 UDI=Unrestricted DID RDI=Restricted DID MRD=Message registration denied MRA=Message registration allowed You can enter more than one class of service by separating each entry with a space. You can press <cr> and select the default features shown in parenthesis.

LD 27 — Changing a line DSL (continued)

Prompt	Response	Comment
TGAR	0-31	Trunk group access restriction
NCOS	0-99	Network class of service
CLS	(UNR) TLD SRE FRE CUN CTD FR1 FR2 (UDI) RDI (MRD) MRA	Class of service access restrictions The values for this prompt are: UNR=Unrestricted TLD=Toll denied SRE=Semi-restricted FRE=Fully restricted CUN=Conditionally unrestricted CTD=Conditionally toll denied FR1=Fully restricted class 1 FR2=Fully restricted class 2 UDI=Unrestricted DID RDI=Restricted DID MRD=Message registration denied MRA=Message registration allowed You can enter more than one class of service by separating each entry with a space. You can press <cr> and select the default features shown in parenthesis.

Changing a trunk DSL

You can change the characteristics of a trunk DSL by changing one or more parameters to adapt it to new transmission or feature requirements. If you wish to skip a parameter, press the Enter key and the next prompt will appear.

Note: The DSL must be idle or disabled before proceeding. Use the STAT c and DISU c dsl# commands in LD 32 to query the status of the DSL and to disable it.

LD 27 — Changing a trunk DSL

Prompt	Response	Comment
REQ	CHG	Changing a DSL
TYPE	DSL	DSL
DSL	c dsl#	DSL location The values for this prompt are: cc (card)=1-20 dsl# (DSL number)=0-7
APPL	BRIT,BRIE, XBRIE	ISDN BRI trunk application Enter BRIT for ISDN BRI trunking, BRIE to download the Universal ISDN Protocol Engine loadware on the DSL, or XBRIE to remove the loadware (all associated DSLs must be first removed for XBRIE).
CUST	0-99	Customer number
CTYP	SILC, UILC	Card type
MISP	1-9	MISP card slot number
MODE	TE/NT	The mode for the trunk DSL. TE is entered for Terminal Equipment, NT is used for Network Termination. See the Trunk configuration figures to determine the Mode to be set based on the configuration you are implementing. This prompt is displayed only if SILC was specified as the card type. For UILC, this entry defaults to NT mode. For SILC, the default is TE. Note: Cannot change MODE from TE to NT if clock on DSL is referenced in the digital data block or DTI2/PRI2 system data. The reference must first be removed. If MODE is set to NT, CLOK will be set to NO.
MTFM	YES/(NO)	Enable/Disable multi-frame option. Prompted only if MODE=TE If enabled this prompt allows you to receive more diagnostic messages.
TKTP	TIE/COT/ DID	Trunk type

Prompt	Response	Comment
CLOK	YES/(NO)	Whether this trunk DSL is provisioned for clock source. The SILC must be residing in slot 1-10 in the main cabinet. This prompt appears if the following conditions are met: - the card type is SILC - the DSL# is 0 or 1 - the trunk DSL has been defined as TE mode Note: The clock prompt cannot be changed from YES to NO if the clock is active; the trunk DSL must first be removed using LD 73. Also, you cannot out a trunk DSL if an active clock exists on it; the trunk DSL must first be disabled.
TSET	(0)-15	Clock error threshold set Note: The threshold Set is currently not used. Press <cr> to accept the default 0 value.
PDCA	(1)-16	Pad table number
ROUT	0-511	Route number for the trunk DSL.
B1	YES/(NO)	Configure B Channel 1. B1 will automatically be YES if ROUT was changed because a new member must be entered.
MEMB	1-254	Route member number associated with B-channel 1.
TGAR	(0)-31	Trunk Group Access Restriction.
NCOS	(0)-99	Network Class of Service Group Number

Prompt	Response	Comment
CLS	aaa	Class of Service options. Possible inputs are as follows: (UNR)=Unrestricted TLD=Toll denied SRE=Semi-restricted FRE=Fully restricted CUN=Conditionally unrestricted CTD=Conditionally toll denied FR1=Fully restricted class 1 FR2=Fully restricted class 2 (APN)=ACD priority not required APY=ACD priority required MRA = Message Registration Allowed (assigning meters to ISDN BRI sets, for Advice of Charge for EuroISDN or Australia-AXE and Japan D70). (MRD) = Message registration denied UNR, APN and MRD are defaults. CUN, CTD, TLD, SRE, FRE, FR1, and FR2 are allowed only for TIE trunks. Input is accepted until <cr> is entered.
B2	YES/(NO)	Configure B Channel 2. If REQ = CHG, and NO is entered to this prompt, and ROUT was changed, all parameters for B2 will remain the same except the route member will be an unused member number. The message "B2 will use Route # Member #" will be displayed.
MEMB	1-254	Route member number.
TGAR	(0)-31	Trunk Group Access Restriction.
NCOS	(0)-99	Network Class of Service Group Number

Prompt	Response	Comment
CLS	aaa	Class of Service options. If TKTP is no longer TIE, CLS will be set to UNR. APN/APY will remain the same as before. Possible inputs are as follows: (UNR)=Unrestricted TLD=Toll denied SRE=Semi-restricted FRE=Fully restricted CUN=Conditionally unrestricted CTD=Conditionally toll denied FR1=Fully restricted class 1 FR2=Fully restricted class 2 (APN)=ACD priority not required APY=ACD priority required MRA = Message Registration Allowed (assigning meters to ISDN BRI sets, for Advice of Charge for EuroISDN or Australia-AXE and Japan D70). (MRD) = Message registration denied UNR, APN and MRD are defaults. CUN, CTD, TLD, SRE, FRE, FR1, and FR2 are allowed only for TIE trunks.

Printing a DSL

You can print the configuration information for a single DSL by specifying its location, all DSLs on a card by specifying the card location, all DSLs in a module by specifying the loop and shelf number, or all DSLs associated with a network loop by specifying the loop number.

LD 27 — Printing a DSL

Prompt	Response	Comment
REQ	PRT	Print an ISDN BRI component
TYPE	DSL	DSL
DSL	cc dsl#, cc <cr>	DSL information The values for this prompt are: cc dsl#=Prints information for the specified dsl# on card cc cc=Prints information for all DSLs on the specified card cc <cr>=Prints the data for all DSLs in the system
DATE	(<cr>) x y z	Print data and display the last active date, where: x=day (1-31) y=month (JAN-DEC), z=year (1979-9999) specifies the starting date of the data to be displayed or printed.
PAGE	YES, (NO)	yes=prints one DSL per page, no=prints without paging
DES	xxxxxx <cr>	1 to 6-digit alphanumeric DSL designator Not prompted if DSL=cc dsl# and trunk DSL <cr>=No designator for DSLs
NACT	YES, (NO)	Activity date is updated to current date

Removing a DSL

You can remove a DSL by specifying its location. To remove a DSL, you must first remove all the TSPs assigned to this DSL. When you remove the last configured DSL on a card, the card is automatically disabled.

Note: You cannot OUT a DSL if an active clock exists on the DSL. The DSL must be idle or disabled before proceeding. Use the STAT c and DISU c dsl# commands in LD 32 to query the status of the DSL and to disable it.

LD 27 — Removing a DSL

Prompt	Response	Comment
REQ TYPE DSL	OUT DSL cc dsl#	Remove an ISDN BRI component DSL DSL location The values for this prompt are: cc (card)=1-20 dsl# (DSL location)=0-7

Changing, removing and printing a TSP**Changing a TSP**

You can change the characteristics of a TSP on a DSL by specifying the DSL location and the user service identifier. You can then modify the service parameters to adapt the TSP to new service requirements for the terminals on that DSL. If you do not wish to change a parameter, press the Enter key and the next prompt will appear. When you want to change a TSP, you must disable the DSL, make the changes to the TSP, and enable the DSL. A warning message will be displayed and all the active calls on the DSL will be disconnected.

Note: The DSL must be idle or disabled before proceeding. Use the STAT c and DISU c dsl# commands in LD 32 to query the status of the DSL and to disable it.

LD 27 — Changing a TSP

Prompt	Response	Comment
REQ	CHG	Change TSP
TYPE	TSP	TSP
DSL	cc dsl#	DSL location The values for this prompt are: cc (card)=1-20 dsl# (DSL location)=0-7 The DSL must have been configured using the <i>DSL configuration procedures</i> .
USID	0-15	User service identifier USID=0 is default TSP assigned to non-initializing terminals. The total number of TSPs defined for a DSL cannot exceed the maximum number of TSPs allowed for a DSL as specified by the MTSP prompt in the <i>DSL configuration procedures</i> . A default TSP must be configured for non-initializing terminals. This is done by assigning a user service identifier of 0 to the TSP.
SPID	x...x,Xx...x, <cr>	Service profile ID The values for this prompt are: x...x=Adds a 9-character numeric or alphanumeric (depending on type of terminal) service profile ID Xx...x=Removes service profile ID. <cr>=Stops this prompt from being displayed again This prompt appears only if you specified a user service identifier of 1-15. If you remove all the service profile IDs, you must define a new one. This prompt will be repeated 8 times or until <cr> is entered.

Prompt	Response	Comment
DN	n...n,Xn...n, <cr>	Directory number to be associated with TSP The values for this prompt are: n...n=Adds a 4 to 7-digit directory number Xn...n=Removes a 4 to 7 digit directory number <cr>=Stops this prompt from being displayed again This prompt is repeated until <cr> is pressed. At least one DN must be assigned to a DSL. The directory number cannot be shared by a non-ISDN BRI terminal. The directory number can be associated with multiple TSPs on a DSL but it cannot be associated with any other DSL. If you remove the directory number that is also assigned as a default directory number, a new default directory number must be defined at the DFDN prompt.
CT	VCE DTA XVCE XDTA	Directory number call type The values for this prompt are: VCE=Adds circuit switched voice DTA=Adds circuit switched data XVCE=Removes circuit switched voice XDTA=Removes circuit switched data One or more call types can be entered. by separating each entry with a space. The call types entered must have been specified for the B1CT and B2CT prompts in the <i>DSL configuration procedures</i>.
MCAL	1-(4)-8	Maximum number of calls per DN at one time Defines the maximum number of calls allowed for the directory number, which includes active calls, calls waiting, and calls on hold.
CLIP	(YES),NO	Calling line identification is displayed on the called terminal for incoming calls if CLIP is set to YES.
PRES	(YES),NO	Allows calling line identification presentation as default The key on the calling terminal toggles the presentation status on a per call basis to allow or restrict sending calling line identification to the called terminal.

Prompt	Response	Comment
FEAT	HTA (HTD) FNA (FND) SFA (SFD) CFTA (CFTD) MWA (MWD) FBA (FBD) HBTA (HBTD)	Class of service features The values for this prompt are: HTA=Hunt allowed (always assign if terminal does have CWT capability) HTD=Hunt denied FNA=Call forward no answer allowed FND=Call forward no answer denied SFA=Second level call forward no answer allowed SFD=Second level call forward no answer denied CFTA=Call forward by call type allowed CFTD=Call forward by call type denied MWA=Message waiting allowed MWD=Message waiting denied FBA=Call forward busy allowed FBD=Call forward busy denied HBTA=Hunting by call type allowed HBTD=Hunting by call type denied You can enter more than one class of service by separating each entry with a space. You can press <cr> and select multiple default features shown in parenthesis
DN	n...n,<cr>	Multiple DN. Press <cr> to go to the next parameter.
DFDN	n...n	Default directory number Enter a 1 to 7-digit directory number. This directory number must have been previously defined at the prompt DN.

Removing a TSP

You can remove a TSP from a DSL by specifying the DSL location and the user service identifier or you can remove all TSPs from a DSL by entering ALL for the USID prompt. All calls associated with the removed TSP will be disconnected.

Note: The DSL must be idle or disabled before proceeding. Use the STAT c and DISU c dsl# commands in LD 32 to query the status of the DSL and to disable it.

LD 27 — Removing a TSP

Prompt	Response	Comment
REQ	OUT	Remove an ISDN BRI component
TYPE	TSP	TSP
DSL	cc dsl#	DSL location The values for this prompt are: cc (card)=1-20 dsl# (DSL location)=0-7
USID	0-15,ALL	User service identifier The values for this prompt are: 0-15=Removes a specified TSP from 0 to 15 ALL=Removes all TSPs for the specified DSL

Printing a TSP

You can print the configuration information for a TSP based on characteristics such as user service identifier, service profile ID, and directory number.

LD 27 — Printing a TSP

Prompt	Response	Comment
REQ	PRT	Print an ISDN BRI component
TYPE	TSP	TSP
DSL	cc dsl#	DSL location The values for this prompt are: cc (card)=1-20 dsl# (DSL location)=0-7 The DSL must have been configured using the <i>DSL configuration procedures</i> .
OPT	SPID,USID, DN,DNS,<cr>	Print option The values for this prompt are: SPID=Prints the TSPs with the specified service profile ID (SPID) USID=Prints the TSP with the specified user service identifier (USID) DN=Prints the TSPs with the specified directory numbers DNS=Prints all the directory numbers defined for the DSL <cr>=Prints all the TSPs defined for the DSL
USID	0-15	User service identifier This prompt appears only if you specified USID at the OPT prompt.
SPID	x...x	Service profile ID Enter a 9-digit alphanumeric service profile ID This prompt appears only if you specified SPID at the OPT prompt.
DN	n...n	Directory number associated with the TSP Enter a 1 to 7-digit directory number This prompt appears only if you specified DN at the OPT prompt.

Isolating and correcting faults

Newly installed ISDN BRI equipment

Problems that occur during the installation of an entire system with ISDN BRI equipment are usually caused by:

- Improperly installed cards
- Loose or improperly connected external communication cables or improperly wired cross-connect in the DSL
- Incorrect ISDN BRI configuration

Previously operating ISDN BRI equipment

Problems that occur during the normal operation of ISDN BRI equipment are usually caused by:

- Faulty cards
- Disconnected or faulty cables
- Faulty power supply
- Improper environmental conditions

Isolating faults

Fault isolation table

Table 22 is used to diagnose the problems based on symptoms you observe. They direct you to a test procedure or suggest a possible solution.

Table 22
ISDN BRI equipment problems

Symptoms	Diagnosis	Solution
Red LED on the MISP is permanently lit.	The MISP is faulty, has not been configured, or is disabled.	Go to <i>Procedure 8-1 of MISP fault isolation and correction</i> in this chapter to check the MISP status.
Automatic recovery routine is activated every 30 seconds to enable or disable the MISP as indicated by the MISP LED flashing every 30 seconds.	Program software download (PSDL) failed due to MISP or data cartridge failure.	If all the MISPs in the system show red LED lit, check the program software download, otherwise replace the defective MISP.
	Incompatibility between software configuration and the application indicating missing or incorrectly configured MISP.	Check that the MISP is installed in the correct card slot.
	The MISP is faulty.	To verify the MISP configuration parameters, refer to the <i>Administration</i> section of this manual <i>MISP configuration procedures</i> .
Red LEDs on one or more SILCs or UILCs are permanently lit.		Go to <i>Procedure 8-2, Performing the MISP self-test</i> .
Calls cannot be placed or received on all SILCs and/or UILCs associated with a specific MISP.	The SILCs and/or UILCs are faulty, disabled, or not configured.	Go to <i>Procedure 8-6 of SILC or UILC fault isolation and correction</i> in this chapter to check the card status.
Calls cannot be placed or received on some SILCs and/or UILCs associated with a specific MISP.	The MISP is faulty, has not been configured, or is disabled.	Go to <i>Procedure 8-1 of MISP fault isolation and correction</i> in this chapter to check the MISP status.
	The SILCs and/or UILCs are faulty or disabled.	Go to <i>Procedure 8-6 of SILC or UILC fault isolation and correction</i> in this chapter to check the card status.
	Signaling link between the MISP and the SILCs or UILCs is faulty.	Go to <i>Procedure 8-3 Performing MISP loopback tests</i> in this chapter to check the continuity of the signaling channel.

Symptoms	Diagnosis	Solution
Calls cannot be placed or received on some DSLs on a particular line card.	The DSLs incorrectly configured, not configured, or disabled.	Go to <i>Procedure 8-7 of SILC or UILC fault isolation and correction</i> in this chapter to check the status of each DSL.
	Signaling link between the MISP and the SILCs or UILCs is faulty.	Go to <i>Procedure 8-3 Performing MISP loopback tests</i> in this chapter to check the signaling link between the MISP and the SILCs and/or UILCs.
	ISDN BRI terminal faulty or incorrectly configured. DSL wiring faulty.	Check the ISDN BRI terminal user manual to determine if the terminal is operating correctly. Check the DSL wiring.
Problems with features on ISDN BRI terminals.	Incorrect DSL and/or TSP configuration for the connected ISDN BRI terminals.	Use the configuration procedures in the <i>Administration</i> section of this manual to verify the DSL and the TSP configuration parameters.
User reports problems with calls on specific type terminals.	Mismatch between the DSL configuration and the terminal type connected to the DSL, a faulty terminal, or a faulty connection to the DSL.	Go to <i>Procedure 8-7 of SILC or UILC fault isolation and correction</i> in this chapter to check the status of each DSL. Check DSL wiring between the main frame connection and the terminal. Wiring includes building cabling, mounting cords and wall jacks. Check the ISDN BRI terminal user manual to determine if the terminal is operating correctly and is configured correctly.

MISP fault isolation and correction

The MISP provides a communication interface between the CPU and the peripheral devices. It processes the signaling information received on the D-channels from the DSLs. These D-channels may also carry packet data that the MISP separates from signaling information and forwards to the packet handler.

To isolate and correct the MISP-related problems, follow the procedures below.

Procedure 8-1: Checking the MISP status

The diagnosis in Table 22 indicates that the MISP may be faulty, not configured, or disabled.

To obtain the MISP status:

- 1 Log-in on the maintenance terminal and load overlay program 32.**
- 2 Enter STAT c where c is the card slot number of the MISP you are testing.**

If the response is;

c: MISP LOOP

mm DSBL nn BUSY

MISP c: ENBL ACTIVATED xx/xx/xx xx:x

BRIL or BRIT: ENBL

BRIL or BRIT is the ISDN BRI LINE or TRUNK (whichever one is configured) application on the MISP. The MISP is enabled, where **mm** is the number of disabled connections on the Card, which should be 0 and **nn** is the number of busy connections on the MISP. This number is equal to 2x(# of line cards + 1) where 1 indicates that packet data transmission is configured, (there are 2 connections for each SLIC or UILC and an additional connection for packet data handling). The xx/xx/xx xx:x is the date and time the MISP base code was activated.

If **mm** is greater than 0, it indicates disabled connections. The disabled connections may indicate faulty line cards. Go to *Procedure 8-6*.

If the response is

c:MISP LOOP

DISABLED RESPONDING

MISP c MAN DSBL

the MISP card slot is disabled but the MISP is responding. The card has been manually disabled using the **DISC c** command in this program, an overload condition exists on the card, or when enabling the MISP the self-test failed.

If the application is manually disabled, the response is BRIL or BRIT: MAN DSBL

If the application is system disabled, the response is BRIL or BRIT: SYS DSBL

If there is no application configured on the MISP, the response is NO APPLICATION CONFIGURED.

Type **ENLL c** and press the Enter key to enable the card, where **c** is the MISP card number. A message indicating that the MISP is enabled and working is displayed on the console. Also observe the red LED on the MISP. If it extinguishes, the MISP is functioning correctly. If the LED stays lit, the MISP probably failed self-test and a message should be displayed on the maintenance terminal indicating that.

If the message indicates that the MISP is faulty, replace the card.

If the response is:

c:MISP LOOP

DISABLED RESPONDING

MISP c SYS DSBL - xxxxxxxx

the MISP is disabled but is responding. The card has been system disabled, an overload condition exists on the card, or when enabling the MISP the self-test failed.

Where xxxxxxxx may indicate

SELF TESTING - when the card is performing self test

SELFTTEST PASSED - when the card successfully completed self test

BOOTLOADING - when the basecode is being downloaded to the MISP

SELFTTEST FAILED - when the self test failed

FATAL ERROR - when the MISP has a serious problem
SHARED RAM TEST FAILED - when the card has a memory problem
OVERLOAD - when the card is faulty and it experiences an overload
RESET THRESHOLD - when the card is faulty and reaches the specified threshold
STUCK INTERRUPT - when the MISP has hardware failure and the interrupt is permanently on

If the response is:

c:MISP LOOP

DISABLED NOT RESPONDING

MISP c MAN DSBL

the MISP is manually disabled and the MISP is not responding, is missing, installed in an incorrect slot, or faulty. Check for these conditions and go to the appropriate test procedure based on you findings. It has to be enabled by using **ENLC c** in LD 32 when the **NOT RESPONDING** condition is cleared.

If the response is:

c:MISP LOOP

DISABLED NOT RESPONDING

MISP c SYS DSBL - NOT RESPONDING

the MISP is system disabled and the MISP is not responding, is missing, installed in an incorrect slot, or faulty. A background routine will try to enable the MISP as soon as the cause of **NOT RESPONDING** is cleared.

- 3 To obtain the ISDN BRI application status, enter STAT BRIL c (for a line) or STAT BRIT c (for a trunk) and observe the response.**

If the response is

c:MISP LOOP

APPLICATION ENBL ACTIVATED - xx/xx/xx xx:xx

the application has been activated at the date and time specified by xx/xx/xx xx:xx.

enable the MISP as soon as the cause of **NOT RESPONDING** is cleared.

If the response is:

c:MISP LOOP

APPLICATION NOT CONFIGURED

the application is not configured for the specified MISP.

If the response is:

c:MISP LOOP

DISABLED NOT RESPONDING

the application status is not displayed because the MISP running the application is disabled or faulty and is not responding.

If the response is:

c:MISP LOOP

DISABLED RESPONDING

the application status is not displayed because the MISP running the application is responding but is disabled.

If the response is

c:MISP LOOP

APPLICATION MAN DISABLED

the application is manually disabled using LD 32. It has to be enabled using **ENLC c** command in LD 32.

If the response is:

c:MISP LOOP

APPLICATION SYS DISABLED

the application is system disabled and the background routine will attempt to enable it again.

Procedure 8-2: Performing the MISP self-test

If the MISP status indicates that the MISP is faulty, you should conduct the self-test to verify that this MISP is actually faulty before replacing it.

To start the self-test, follow the steps below:

- 1 Log-in on the maintenance terminal and load overlay program 32 (LD 32).**
- 2 Type DISC c and press the Enter key to disable the MISP card, where c is the MISP card number you are disabling.**
- 3 Exit LD 32 by typing **** and load overlay program 30 (LD 30).**
- 4 Type SLFT c type and press the Enter key to start the self-test, where c is the MISP card number and type is 1 for a detailed self-test and 2 for minimal test.**

If the response is:

NWS637

the MISP card passed the self-test and is functional but must be enabled to extinguish the red LED and to start processing calls. It may take up to 20 seconds to display this response.

If the MISP passed the self-test, but the problem persists, other cards that interface with the MISP may be faulty. To verify the peripheral equipment cards interfacing with the MISP, go to Procedure 8-3 and 8-4.

If the response is

NWS632

the MISP card failed the self-test and is faulty. Replace the MISP as described in *Replacement procedures*. Other NWSxxx message may be displayed as a result of a command activated self-test if the MISP is missing or not configured.

Performing the MISP loopback tests

If the MISP self-test indicates that the MISP is not faulty, you should conduct loopback tests to isolate the problems that may exist on the connections between the MISP and the SILCs and/or UILCs.

You can perform two types of MISP loopback tests. These are:

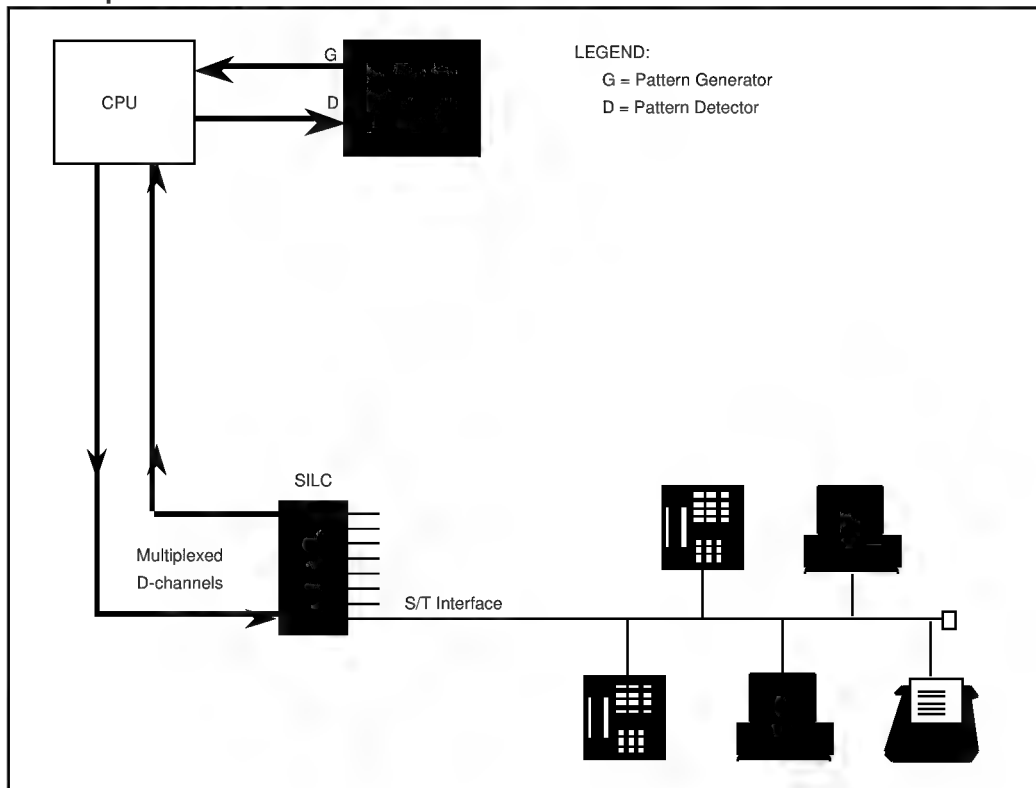
- MISP loopback at a DSL interface as described in *Procedure 8-3*
- MISP loopback at the SILC or UILC DS30X bus interface as described in *Procedure 8-4*

Procedure 8-3: MISP loopback at a DSL interface

The loopback at a DSL interface checks the continuity of the D-channel signaling path between the MISP and an individual SILC or UILC port.

Figure 54 illustrates a DSL loopback path and the MISP as a test pattern generator and detector.

Figure 54
MISP loopback at a DSL interface



To start the loopback test:

1 Log-in on the maintenance terminal and load overlay program 45 (LD 45).

2 Select test condition:

Enter **XCON 0** and press the Enter key if you wish to perform only one loopback test.

Enter one test period shown in **XCON H 0-182, M 0-59, S 0-60** and press the Enter key to select continuous loopback testing for a selected time span, where **H 0-182** is 0 to 182 hours, **M 0-59** is 0 to 59 minutes, and **S 0-60** is 0 to 60 seconds.

Example: **XCON M 5** specifies the duration of the test to be 5 minutes.

3 At the TEST prompt, type 9 and press the Enter key.

Continue responding to the prompts to configure the loopback test as follows:

Prompt	Response	Comment
TEST	9	Selects loopback at the DSL
PATT	x	x is the selected pattern, where x is 0-7
TYPG	5	MISP is generating and transmitting the pattern
LOOP	c	MISP number, where c is card slot number
LBTY	3	DSL is requested to loop back
LBTN	c dsl#	The address of the looped back DSL, where c is an SILC or UILC card slot, and dsl# is DSL
TAG	xx	TAG is automatically assign by the system. If the loopback test is continuous, the system tags the test with a number from 0 to 15 to keep track of the tests.

4 Check the test results.

The result is automatically displayed if you specified XCON 0 test conditions, otherwise you must specify XSTA or XSTP with the test TAG number to check the status.

XSTA gets the status of the manual continuity test and XSTP stops the manual continuity test.

If the results show BSDxxx messages, refer to the list and description of these messages in this guide. The BSDxxx messages indicate the possible problem causes, which you should check to isolate the problem.

If the loopback continuity test passes, the problem may be somewhere in the DSL or the ISDN BRI terminal.

If the loopback continuity fails, go to *Procedure 8-4*.

Procedure 8-4: MISP loopback at the SILC or UILC interface

The loopback at the SILC or UILC interface checks the continuity between the MISP and the SILC or UILC and its ability to communicate with the MISP over the multiplexed D-channels.

Figure 55 illustrates the SILC or UILC loopback path and the MISP as a test pattern generator and detector.

4 Select test conditions

Enter **XCON 0** and press the Enter key, if you wish to get only one loopback test.

Enter one test period shown in **XCON H 0-182, M 0-59, S 0-60** and press the Enter key to select continuous loopback testing for a selected time span where **H 0-182** is 0 to 182 hours, **M 0-59** is 0 to 59 minutes, and **S 0-60** is 0 to 50 seconds.

For example: **XCON H 1** conducts the test for one hour.

5 At the TEST prompt, enter 9 and press the Enter key.

Continue responding to the prompts to configure the loopback test as follows:

Prompt	Response	Comment
TEST	9	Selects loopback at the SILC/UILC
PATT	x	x is the selected pattern, where x=0-7
TYPG	5	MISP is generating and transmitting the pattern
LOOP	c	MISP card number, where c is the card slot number
LBTY	4	Card is requested to loop back
LBTN	c dsl#	The address of the looped back card, where c is the card slot number and dsl# is the port.
TAG	xx	If the loopback test is continuous, the system tags the test with a number from 0 to 15.

6 Check the loopback test results.

The result is automatically displayed if you specified **XCON 0** test conditions, otherwise you must specify **XSTA** or **XSTP** with the test **TAG** number to check the status.

If the results show **BSDxxx** messages, refer to the list and description of these messages in this guide. The **BSDxxx** messages indicates the possible problem causes, which you should check to isolate the problem.

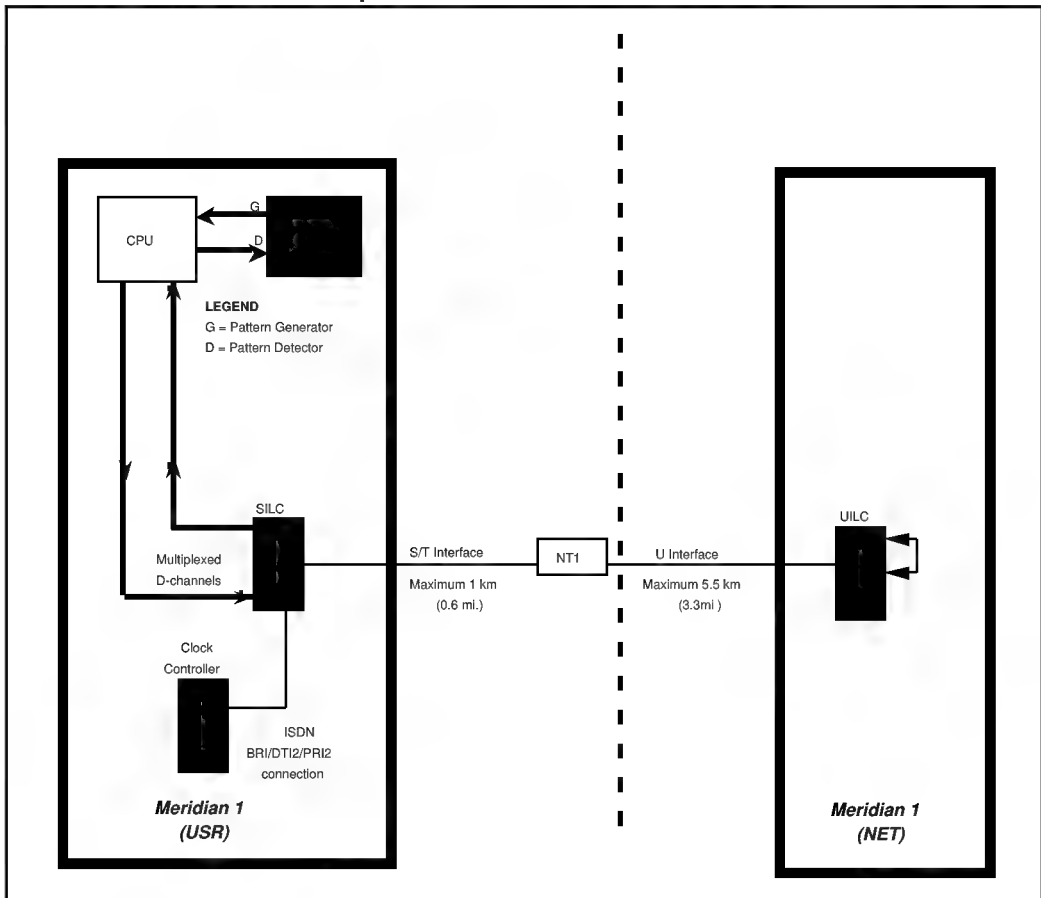
If the loopback continuity test passes and the MISP loopback test failed, the problem may be in the line card.

If the loopback continuity test fails, the problem may be between the MISP and the line cards.

Procedure 8-5: ISDN BRI trunk remote loopback test

Figure 56 illustrates a remote loopback test for an ISDN BRI trunk DSL provisioned as a MCDN Tie configuration; the Tie connection is achieved by connecting two Meridian 1s through an NT1 device.

Figure 56
ISDN BRI trunk DSL remote loopback



The following steps are used to perform the remote loopback test for a ISDN BRI trunk DSL provisioned as a MCDN Tie configuration.

Performing the ISDN BRI trunk remote loopback test

- 1 Log in on the maintenance terminal and load overlay 32 (type in LD 32).**
- 2 Put the far-end and near-end of the ISDN BRI trunk in the test mode by entering the `ENTS c dsl#` command, and pressing the ENTER key. Note: the ISDN BRI trunk DSL must be configured for the ISDN BRI trunk application, and must be either in the release or enabled state.**

If the reference clock source is configured on the DSL, you will be prompted with “**CLOCK SOURCE ON DSL # OF SILC C, PROCEED?**” to ensure that you have taken necessary precautions for uninterrupted clock reference for the system.

- 3 Put the far-end ISDN BRI trunk DSL in the remote loopback mode by entering the `ENRB cc dsl#` command, and pressing the ENTER key.**
- 4 Run the remote loopback test by entering the `RLBT c dsl#` command, and pressing the ENTER key.**

The result of the test will be displayed as follows:

DSL: C / C RLB TEST TIME: xx:xx

TEST: PASS

TEST: FAIL - NO DATA RCV FAR END

TEST: FAIL - CORPT DATA RCV FAR END

TEST: FAIL - REASON UNKNOWN

If the test failed due to no data or corrupt data being received from the far end, verify that proper test data is being used; if the test failed for unknown reasons, make ensure that the ISDN BRI trunk DSL has been properly configured for the ISDN BRI trunk application, and perform the test again.

- 5 **Take the far-end ISDN BRI trunk DSL out of remote loopback mode by entering the DSRB c dsl# command, and pressing the ENTER key.**

The the far-end and near-end ISDN BRI trunk DSLs are placed in the test mode.

- 6 **Take the far-end and near-end ISDN BRI trunk DSLs out of test mode by entering the DSTS c dsl# command, and pressing the ENTER key.**

The ISDN BRI trunk DSLs are reset in their release or established state.

- 7 **Enable the ISDN BRI trunk DSL by entering the ENLU command.**

SILC fault isolation or UILC fault isolation and correction

The SILC and UILC intelligent peripheral cards provide eight S/T interfaces and eight U interfaces respectively, which are used to connect ISDN BRI compatible terminals or trunks over DSLs to the Option 11 system.

Procedure 8-6: Checking the SILC or UILC status

The diagnosis in Table 22 indicates that an SILC or a UILC may be faulty, not equipped, or disabled. The first step in identifying the problem is to verify the status of the card.

To obtain the card status:

- 1 Log-in on the maintenance terminal and load overlay program 32 (LD 32).**
- 2 Type STAT c and press the Enter key, where c is the card slot number.**

If the response is:

II = UNIT II = UNEQ

the card has not been configured for the specified card slot.

For ISDN BRI trunks

If the response is:

II = UNIT II = *swstate type L2 _state L1 _state dch _state clk (mode)*

For ISDN BRI lines

If the response is:

II = UNIT II = *swstate type L2 _state L1 _state*

Where:

swstate = software state of DSL

L2 _state = layer 2 state on the MISP

L1 _state = layer 1 state on the line card

dch _state = software state on the D-channel link

ESTA — link is established

RLSU — link is released

TEST-IDLE — link is in test state

TEST-RLBT — link is in remote loopback test state

clk = software state of reference clock (if configured)

DSBL — reference clock configured but not active

SREF — secondary reference clock is active

PREF — primary reference clock is active

mode = mode of trunk DSL

{NT, TE}

Example:

SW DSL2L1D— CHANNELCLK
00 = UNIT 00 = IDLELINEESTAUP
01 = UNIT 01 = IDLETRNKESTAUP ESTASREF (TE)
02 = UNIT 02 = IDLELINEESTADOWN
03 = UNIT 03 = UNEQ
04 = UNIT 04 = UNEQ
05 = UNIT 05 = UNEQ
06 = UNIT 06 = DSBLTRNKDSBLUNEQRLS(NT)
07 = UNIT 07 = DSBLTRNKDSBLUNEQRLS(TE)

Table 23 lists DSL software states. *Software_state* is the status of a DSL as perceived by the Option 11.

Table 24 lists the DSL status as perceived in the MISP call application.

Table 25 lists line card states to indicate the status of a DSL.

Table 23
DSL software status in the CPU

<i>software_state</i> (DSL)	Description	Comments
IDLE	No active calls.	No action required.
BUSY	Call is active.	No action required.
MBSY	DSL is in maintenance busy mode.	No action required. The DSL is being tested.
DSBL	DSL is disabled.	Enable DSL using LD 32.
UNEQ	DSL is unequipped.	The DSL is not configured. Refer to the <i>Administration</i> section of this manual, <i>DSL configuration procedures</i> to configure the DSL.

Table 24
DSL Layer 2 status in the MISP

MISP_state	Description	Comments
NTAN	DSL is not assigned to an MISP.	DSL is not properly configured. Refer to the <i>Administration</i> section of this manual, <i>DSL configuration procedures</i> to configure the DSL.
UNEQ	Unequipped.	MISP not configured. Refer to the <i>MISP configuration procedures</i> to configure the MISP.
IDLE	No active calls.	No action required.
BUSY	Call is active.	No action required.
MBSY	DSL is in maintenance busy mode.	No action required. The DSL is being tested.
DSBL	DSL is disabled.	Enable DSL using LD 32.
UNDN	DSL is in an undefined state.	Check the DSL configuration in the <i>DSL configuration procedures</i> .
RLS	Link layer is not established.	Terminal not connected to the DSL or faulty. Check terminal using terminal user guide.
ESTA	Link layer is established.	No action required.
MPDB	MISP is disabled.	Enable MISP using LD 32.
APDB	MISP call application is disabled.	Enable MISP application using LD 32.
MPNR	MISP not responding or message is lost.	Go to <i>Procedure 8-1</i> to check the MISP status.
UTSM	CPU unable to send message to MISP.	Go to <i>Procedure 8-1</i> to check the MISP status.

Table 25
DSL Layer 1 status in the line card

LC_state	Description	Comments
UNEQ	Not equipped.	DSL is not configured. Refer to the <i>DSL configuration procedures</i> to configure the DSL.
DOWN	DSL is disabled.	
	Link layer is not established.	DSL faulty or terminal not connected or faulty. Perform a pack self test. Check cables. Check the terminal using terminal user guide.
UP	Link layer is established.	No action required.
LCNR	Line card is not responding.	Faulty line card. Go to Procedure 8-6, Checking the SILC and UILC status.
DSBL	DSL is disabled.	Enable DSL using LD 32.
UNDN	DSL is in an undefined state.	Check the DSL configuration in the <i>DSL configuration procedures</i> .
UTSM	CPU unable to send message to the line card.	Faulty line card or the path between the CPU and the card. Go to <i>Procedure 8-3</i> .

Note: After you have obtained the status of all the DSLs for a selected card, you may wish to continue checking the status of individual DSLs by continuing with Procedure 8-7 or you can go to Procedure 8-8 to perform the self-test on the card.

Procedure 8-7: Checking the DSL status

If the card status shows that some of the DSLs on the card are undefined, unequipped, disabled, or unable to send a message to the MISP, you can check the individual DSLs to obtain more specific data on its state by following the steps below:

To check the status:

Type `STAT c dsl#`, where **c** is the card slot number and **dsl#** is one of the eight ports (DSLs) on the card, and press the Enter key.

The response is:

DSL type: `SW= SW_state L2= l2_state L1= l1_state LK=dch_state CLK= clk`

B1= b1_state B2= b2_state

The possible states for the *swstate* are listed in Table 23, for the *mstatus* in Table 24, and for the *lcstatus* in Table 25. The *Bstatus* is listed below.

Bstatus	Description	Comments
IDLE	No active calls.	No action is required.
BUSY	Call is active.	No action is required.
MBSY	B-channel is in maintenance busy mode.	No action required. The channel is used for maintenance testing.
DSBL	B-channel is disabled.	Enable DSL using LD 32.

Procedure 8-8: Performing the SILC or UILC self-test

If the card or DSL status indicates that the SILC or UILC is faulty, you should conduct a self-test to verify that the SILC or UILC is actually faulty before you replace it. This test verifies the basic SILC or UILC functions and outputs a fail or pass message after the test is completed.

To start the self-test:

- 1 Log-in on the maintenance terminal and load overlay program 32 (LD 32).**
- 2 Type DISC c and press the Enter key to disable the card.**
Enter the appropriate card address, where **c** is the card slot number.
- 3 Exit LD 32 by typing ****.**
- 4 Load overlay program 30 (LD 30).**
- 5 Type SLFT c and press the Enter key to start the self-test.**

Enter the appropriate card address where **c** is the card slot number.

During the self-test observe the red LED on the front panel. The LED is lit during the test. It flashes three times and extinguishes if it passes the test, otherwise it failed the test.

If the card passes the self-test, it is automatically enabled and ready to start processing calls.

If the response is

NWS637

the card passed the self-test and is functional but the problem may be in the DSL cabling or the terminals or trunks.

Check the DSL connections from the Option 11 cabinet through the cross-connect terminal to ISDN BRI terminals or trunks connected to this DSL. You may see other NWSxxx messages, which indicate different problem causes.

NWS632

the card failed the self-test and is faulty or missing. If the card is faulty, replace it as described in *Replacement procedures* or install a card into the empty card slot if is missing.

Replacing ISDN BRI cards

The following procedures describe how to remove and replace defective cards, verify the operation of ISDN BRI equipment, and package and ship the defective cards to an authorized repair center.

Removing and replacing the MISP

The MISP can be removed and inserted without turning off the power. This allows the system to continue processing calls not associated with the defective MISP.

Note: A clock controller is required for ISDN PRI, DTI or BRI trunk applications. If the MISP being removed is providing the clock function, the clock must be reassigned to another location. Refer to the chapter ISDN BRI trunk implementation for more information.

To remove a MISP:

- 1 **Log-in on the maintenance terminal or telephone and load overlay program 32 (LD 32). Check the status of the MISP by entering STAT c, where c is the card slot number of the MISP.**

Note: Make sure the MISP is idle before proceeding with the next step to avoid interrupting active calls.

- 2 **When the MISP is idle, type DISC c and press the Enter key to disable the MISP, where c is the card slot number of the MISP.**
- 3 **Remove the MISP.**

Remove the clock controller if there is one.

Place it in an antistatic bag away from the work area.

- 4 **Insert and secure the replacement MISP in its card slot.**

Install the clock controller if one is required.

The MISP automatically starts a self-test.

Observe the Dis LED on the front of the MISP. It is lit during the test. If it flashes three times and stays lit, it has passed the test. If it does not flash three times and then stays lit, it has failed the test.

- 5 **At the > prompt in LD 32, type ENLC c and press the Enter key to enable the MISP.**

If the Dis LED on the MISP extinguishes, the MISP is functioning correctly and is ready to process calls.

Removing and replacing the SILC or UILC

The SILCs and UILCs can be removed from and inserted without turning off the power. This allows the system to continue processing calls on functional SILCs and UILCs.

Note: In the case where an ISDN BRI trunk connected to the card is providing a reference clock source to the system clock controller, the reference source must be reassigned to another location. Refer to the chapter entitled ISDN BRI trunk implementation for more information about the clock controller source.

To remove an SILC or UILC:

- 1 **Log-in on the maintenance terminal or telephone and load overlay program 32 (LD 32).**

Note:

Make sure the MISP is idle before proceeding with the next step to avoid interrupting active calls.

- 2 **Type DISI c and press the Enter key to disable the SILC or UILC, where c is the MISP card slot number.**

Note:

The DISI command waits until all units on the card are idle before disabling it. You may also use the DISC command, however, all calls associated with the card will be disconnected.

- 3 **Remove the card.**

Place it in an antistatic bag away from the work area.

- 4 **Insert and secure the replacement card in its card slot.**

The card automatically starts a self-test.

Observe the red LED on the front of the card. It is lit during the test. If it flashes three times and stays lit, it has passed the test. Go to step 9. If it does not flash three times and then stays lit, it has failed the test.

- 5 At the > prompt in LD 32 program, type ENLC c and press the Enter key to enable the card.**

If the red LED on the card extinguishes, it is functioning correctly and is ready to process calls.

Verifying operation

After you have replaced faulty cards with the spares and enabled them, you should perform some basic tests to verify that the replacement card solved the problem.

To verify the operation of an SILC or UILC card:

- 1 Place an outgoing voice, data or packet data call, as appropriate, on an ISDN BRI terminal or trunk connected to a previously faulty card or DSL to verify the outgoing transmission and signaling channels.**
- 2 Place an outgoing voice or data call on an ISDN BRI terminal to the ISDN BRI terminal or trunk in step 1 to verify the incoming transmission and signaling channels.**
- 3 Repeat these two steps for other previously faulty cards and DSLs.**

To verify the operation of an MISP:

- 1 Place an outgoing voice, data or packet data call, as appropriate, on an ISDN BRI terminal or trunk connected to a DSL associated with a previously faulty MISP to verify its ability to process the signaling information received on D-channels.**
- 2 Disconnect the call after you determined that the connection was successful.**

Packing and shipping defective cards

To ship defective circuit cards to a repair center, you should:

- 1 Tag the defective card with the description of the problem.**
- 2 Package the defective card for shipment using the packing material from the replacement card and securely closing the box with tape.**

Testing and troubleshooting ISDN BRI terminals

Verifying a new M5317T terminal installation

Verifying user operation

Any problems found during this phase should be corrected before turning equipment over to the customer. Refer to the "Troubleshooting" chapter.

- 1 Examine loop length.
- 2 If under-carpet cabling is used, evaluate the cables for loss, impedance, crosstalk, and propagation delay.
- 3 Examine all telephone connections.
- 4 Set up a communication path to another M5317.
- 5 Go through some call routines, using the enabled features. (Refer to the M5317 Voice Features User Guide for procedures to establish and answer telephone calls.)
- 6 Verify that the display is showing the appropriate responses.

Troubleshooting the M5317T

Trouble conditions may be reported by the telephone user (customer report), by way of automatic routine tests, or during installation procedures.

Isolating switch problems

- 1 Run the LD32 diagnostic program for the Meridian 1 switch.
- 2 Check for error and location codes in the diagnostic output.
- 3 If the codes indicate a faulty component, replace it. Refer to the "Replacing ISDN BRI cards" section in this document.
- 4 Run the diagnostic programs again to confirm that the error and location codes have been cleared.

Clearing error codes

Perform the following steps if the telephone displays error codes after initialization. After each step, check the display. If an error code persists, go to the next step.

- 1 If the static X.25 TEIs in the telephone and the network do not match, datafill the telephone TEIs manually.
- 2 If the SPIDs in the telephone and the network do not match, correct the telephone SPIDs.
- 3 Confirm that a terminating resistor is present in the loop.
- 4 Perform a loop-back test with the suspect telephone connected to an external shorting jack.
- 5 Substitute a different telephone, datafilling it with the same information as the suspect telephone.
- 6 Replace or repair any defective wiring between the telephone and the network termination or line card.
- 7 Confirm that non-reversing cables are used.
- 8 Replace the telephone and repeat the installation process.

Restoring dial tone

If there is no dial tone or if you cannot make a telephone call, follow these procedures. Check for dial tone and try to make a call after each step.

- 1 Check and re-insert any loose Teladapt connectors.
- 2 Wiggle the line cord or handset cord while listening for sounds from the handset. If you hear crackling or ticking sounds, replace the cords.
- 3 Check the teladapt socket for the handset or try another handset.
- 4 Re-run any defective wiring between the line card, distribution panel, and telephone.
- 5 Check the switch software to confirm the correct telephone assignment and voice channel operation in the network.
- 6 Replace the telephone.

Isolating faulty keys

Refer to the M5317T Installation Guide for procedures to follow if you suspect faulty key operation or if the display is behaving strangely.

Verifying a new M5209T terminal installation

Procedures are provided for the following tests:

- Running a self-test
- Running a panel test
- Making a test voice call
- Making a test data call (applies to the M5209TDp and M5209TDcp models only)
- Assigning the test display language (M5209TDcp models only)

Running a self-test

WARNING

If you have made changes to SPIDs or TEIs, wait 20 seconds for the set to update its memory before continuing.

- 1 Unplug the RJ45 line cord from the jack, wait five seconds, then plug it in. The set automatically does a self-test on power up.
- 2 Check the display for the following message:

SELF TEST PASSED

If this message appears, the self-test was completed successfully. If the self-test failed, the display shows the following message:

code: SELF TEST FAILED
V:TWait P:TWait C:TWait

Where **code:** refers to a specific code number. Write down the code number(s) and refer to the “Troubleshooting displayed error messages” section of the M5209T Installation Guide.

Running a panel test

- 1 Press the Hold and Rls keys simultaneously until the following main menu is displayed:

**MAIN MENU
CONFIG**

- 2 Press #. The following prompt is displayed:

ENTER PASSWORD

- 3 Dial 4736 (ISDN) and press #. The following message is displayed:

**CONFIGURATION MENU
TEI**

- 4 Press * until the following option is displayed:

**CONFIGURATION MENU
KEY TEST**

- 5 Press # to begin the key test.

The M5209T tests the display and indicators by flashing a checkerboard pattern on the display, and by turning on the half-diamonds one at a time.

After the display test, the following message appears:

DEPRESS ALL KEYS

Press the following keys; as you do, check that each key is displayed as it is pressed.

0-9 (dial pad keys)

*

#

volume up/volume down

Hold

Rls

When all keys have been tested, the following should be displayed:

0123456789*#UDHR

- 6 Press each feature/line key.

As you press each key, a diamond appears on the associated feature/line indicator. When you press the last indicator, a diamond does not appear. Instead, the following message is displayed:

CONFIGURATION MENU
EXIT

- 7 Note any problems that you encountered during the test, and refer to the Troubleshooting section.
- 8 Exit the test by pressing Rls.

Making a test voice call

- 1 Make a voice call using a standard test DN. Note any problems that you encountered during the test, and refer to the Troubleshooting section.

Making a test data call

Note: Skip this test if the installed set is an M5209T (voice only set).

- 1 If you have been trained in making and troubleshooting data call, refer to the appropriate set manuals to make the test data call. If you are not familiar with data call procedures, contact the customer representative and have him make a data call for you.

Assigning the test display language

Note: This test applies to the M5209TDcp only.

- 1 Press the Hold and Rls keys simultaneously until the following main menu is displayed:

MAIN MENU
CONFIG

- 2 Press * until the following option is displayed:

MAIN MENU
LANGUAGE

- 3 Press #. The following message is displayed:

LANGUAGE
ENGLISH

- 4 Press * to select the desired display language.
- 5 Press #. The following message is displayed:

MAIN MENU
EXIT

Troubleshooting the M5209T

Trouble conditions may be reported by the telephone user (customer report), by way of automatic routine tests, or during installation procedures. The following are general troubleshooting procedures to follow when problems are found with the M5209T; for more detailed information on troubleshooting the M5209T, refer to the M5209T Installation Guide.

Note: You should bring the following spare replacement parts to the installation site to be tested:

- installed set model
- handset
- handset cord
- RJ45 line cord
- RS-232C interface cable

Power and cable connection problems

When no response is received from the M5209T, the cable and power connections should first be checked before proceeding with any other troubleshooting sequence.

Check the cable connections and power supply, by ensuring that:

- 1 The RJ45 line cord is properly connected to the wall jack or Terminator Resistor (TR) box.
- 2 If used, the RS-232C interface cable is properly connected to both the DTE port and the M5209 data port.
- 3 The handset cord is properly connected to both the handset and the handset jack underneath the set.
- 4 The cable from the wall jack or TR box, to the NT1, is properly connected.
- 5 The U-loop cable and the NT1 is properly connected.
- 6 The S-loop cable and the NT1 is properly connected

- 7 The NT1 is functioning properly.

Whether the NT1 is a stand-alone or rack-mount model, both types are functioning properly when the LED status indicators appear as summarized below:

Status Indicator	LED light
Power	On
S/T	OFF
U-sync	OFF
Test	OFF

If the NT1 indicators are not as shown above, it is not ready for use with the M5209; contact your supervisor for direction.

Once you have checked the cable connections and power supply, and the M5209 is still not responding:

- 8 Unplug the RJ45 line cord from the wall jack or TR box for five seconds, then plug it back in and perform a power reset on the M5209.
- 9 If problems still exist, try another M5209T set, using the existing cables. If this set works, the problem is with the original set; it should be replaced.

If the replacement M5209T does not work, replace the existing cables with your spare cables; repeat step 8.

If problems persist, contact your supervisor.

Problems with the set components

Problems with the set components may include:

- the keys are not responding, or responding improperly;
 - the feature key indicators are not functional
 - the display is not functional
 - the handset has no audio, or the audio is distorted
 - the speaker has no audio, or the audio is distorted
- 1 Check the cable connections using the procedures described in the “Power and cable connection problems” section. For handset problems, try another handset cord or another handset.
 - 2 If cables are not the source of the problem, run a panel test as described in the “Verifying a new M5209T terminal installation” chapter.

If the panel test fails, replace the set.

Troubleshooting displayed error messages

When a self test is performed as described in the “Verifying a new M5209T terminal installation” chapter, and it fails, a code number is displayed to indicate the type of error that is at hand. Refer to the “Troubleshooting displayed error messages” section of the M5209T Installation Guide for a complete description of these codes, and the steps required to fix the problem situation.

ISDN BRI messages

The following is a list of several types of messages that are displayed on the administration terminal or printed on the system printer or teletype (TTY). These messages may indicate routine system activities, system faults, input or errors made during ISDN BRI configuration procedures. For additional messages refer to the X11 Software Input/Output Guide provided with the Option 11 system.

Basic Rate Interface messages (BRlxxx)

The following messages are printed on demand by using SETM MISP <card#> MNT command in Link Diagnostic Program LD 48. By using RSET MISP <card#> MNT command in Link Diagnostic Program LD 48, you stop printing these messages.

BRI100

MISP sent line card update message. This message consists of two words, where each word indicates the status of the line card update message followed by the time when the message was printed. The possible status conditions are:

- 0H No error
- 1H Invalid DSL address
- 2H Forced disconnect has timed out
- 3H Invalid state change
- 4H MISP application failed to complete layer 1 connection
- 7H MISP application failed to queue the request

Example:

BRI100 004003 000000, where 4 indicates that the application failed to complete layer 1 connection due to 3 - invalid state change

BRI101

MISP sent line card B-channel update message. This message consists of four words, where each word indicates the B-channel status followed by the time when the status was printed. The possible status conditions are:

- 0H No error
- 1H Invalid DSL address
- 2H Forced disconnect has timed out
- 3H Invalid state change
- 4H MISP application failed to complete layer 1 connection
- 7H MISP application failed to queue the request

BRI102

MISP sent DSL update message. This message consists of one word that indicates the DSL status followed by the time when the status was printed. The possible status conditions are:

- 0H No error
- 1H Invalid DSL address
- 2H Forced disconnect has timed out
- 3H Invalid state change
- 4H MISP application failed to complete layer 1 connection
- 7H MISP application failed to queue the request

BRI103

MISP sent DSL B-channel update message. This message consists of two words, where each word indicates the B-channel status followed by the time when the status was printed. The possible status conditions are:

- 0H No error
- 1H Invalid DSL address
- 2H Forced disconnect has timed out
- 3H Invalid state change
- 4H MISP application failed to complete *physical* (layer 1) connection
- 7H MISP application failed to queue the request

BRI104

MISP sent DSL status message. The first number after the address displays the new DSL status message, the second number displays the reason for the change of status, and the third number displays the time when the status was printed. DSL states are:

- 0H Unequipped
- 1H Disabled
- 2H Maintenance busy
- 3H Reserved for future use
- 4H Enabled, but network (layer 2) is in release state
- 5H Enabled and network (layer 2) is established
- 6H Busy

Possible reasons for change of state are:

- 1H The first *network* (layer 2) link has been established
- 2H The last *network* (layer 2) link has been released
- 3H A DSL overload counters has been reached
- 4H Excessive *physical* (layer 1) errors on a DSL have been detected

BRI105

MISP sent DSL B-channel status message.

BRI107

MISP received line card audit message.

BRI108

MISP received DSL audit message.

BRI109

MISP received line card status audit message.

BRI110

MISP received line card B-channel status audit message.

BRI111

MISP received DSL status audit message.

BRI112

MISP received DSL B-channel status audit message.

BRI113

MISP sent TEI check message.

BRI114

MISP sent TEI restore message.

BRI115

MISP sent TEI remove message.

BRI200

Line card self test response. The response is indicated by the number following the line card address. Possible responses are:

0H	Passed self-test
1H	Line card microcontroller's internal RAM failure
2H	Line card microcontroller's external RAM failure
3H	Line card microcontroller's EPROM failure
4H	Network timeslot controller failure
5H	PAD EPROM failure
6H	Microwire controller failure
7H	Reserved for future use

8H	DSL 0 transceiver failure
9H	DSL 1 transceiver failure
AH	DSL 2 transceiver failure
BH	DSL 3 transceiver failure
CH	DSL 4 transceiver failure
DH	DSL 5 transceiver failure
EH	DSL 6 transceiver failure
FH	DSL 7 transceiver failure

BRI201

DSL reports layer 1 status. For SILCs in network terminator (NT) mode, the possible status conditions can be:

0H	S/T transceiver failure
1H	<i>Physical</i> (layer 1) is activated successfully
2H	<i>Physical</i> (layer 1) is de-activated successfully
3H	<i>Physical</i> (layer 1) is losing synchronization
4H	<i>Physical</i> (layer 1) is in the process of being established
5H	<i>Physical</i> (layer 1) failed to get established

For SILCs in terminal equipment (TE) mode, the possible status conditions can be:

0H	S/T interface transceiver failure
1H	<i>Physical</i> (layer 1) is activated successfully
2H	Deactivation was requested from far end
3H	<i>Physical</i> (layer 1) is losing synchronization
4H	<i>Physical</i> (layer 1) is in the process of being activated
5H	<i>Physical</i> (layer 1) failed to get established

For UILCs in terminal equipment (TE) mode, the possible status conditions can be:

- 0H U interface transceiver failure
- 1H *Physical* (layer 1) is activated successfully
- 2H Deactivation was requested from far end
- 3H *Physical* (layer 1) is losing synchronization
- 4H *Physical* (layer 1) is in the process of being activated
- 5H *Physical* (layer 1) failed to get established
- 6H *Physical* (layer 1) failed to be activated

BRI202

Line card responds to audit DSL state message. Five decimal numbers are displayed following the DSL address indicating the status of the DSL. These numbers specify the mode, B1 and B2 channel status, DSL sampling, framing, and activation:

Mode	B1,B2	Framing activation
Mode	0	Disabled
	1	NT1 mode, adaptive sampling
	2	NT1 mode, fixed sampling
	3	TE mode

B1, B2 0 B-channel disabled

1 B-channel enabled

Framing 0 Multi-framing disabled

1 Multi-framing enabled

Activation 0 Waiting to be activated

1 Automatically activated

BRI203

Line card report for query message available.

BRI204

Line card responds to terminal equipment query message.

BRI300

MISP sent interface data download message.

BRI301

MISP sent timeslot download message.

BRI302

MISP sent packet data download message.

BRI303

MISP sent protocol data download message.

BRI304

MISP sent TSP data download message.

BRI305

MISP sent DSL traffic request message.

BRI306

MISP sent DSL layer 2 traffic request message.

BRI312

Downloading Layer 3 tables to MISP time-out. Default tables in MISP will be used.

BRI313

MISP did not respond to Layer 3 download messages. Default tables in MISP will be used.

BRI314

Downloading Layer 3 tables to the MISP failed. Default tables in the MISP will be used.

The following messages are printed automatically as they occur.

BRI800

The MISP being enabled or disabled is not present in network shelf.

BRI801

Dedicated connection between the MISP and the line card cannot be established.

BRI802

Task is aborted.

BRI803

Application is being enabled.

BRI804

Peripheral loadware is being downloaded.

BRI805

Error detected while downloading protocol to application; application is still being enabled.

BRI806

Protocol download message not acknowledged; application is still being enabled.

BRI807

Line card update message cannot be sent to the application.

BRI808

Line card cannot be put in maintenance busy mode because message cannot be sent to the MISP.

BRI809

Basecode application has been enabled or disabled.

BRI810

MISP is not present in the specified shelf. Make sure that you specified the correct shelf.

BRI811

Data corrupted.

BRI812

Resources not available to process the task; try again later.

BRI813

Another task waiting to be processed; wait at least 30 seconds and try again.

BRI814

Command is illegal. Make sure you enter the correct command.

BRI815

Not equipped. Specify correct card.

BRI816

Not configured as an MISP card.

BRI817

MISP basecode/application is already enabled.

BRI818

Specified application is not configured on the MISP.

BRI819

Peripheral loadware downloading to the MISP failed; check to see that loadware is present on the diskette and the diskette is inserted in disk drive.

BRI820

MISP self test failed. Check the MISP card. If the problem persists, replace the card.

BRI821

Application cannot be enabled or disabled because software is being downloaded.

BRI822

Task aborted. Firmware download cannot be completed because the application is enabled.

BRI823

Unable to send message to the MISP to enable or disable basecode application.

BRI824

MISP cannot perform the enable/disable tasks.

BRI825

Message cannot be sent to remove application from the MISP's EPROM.

BRI826

Socket IDs have not been assigned to this application. Task is aborted.

BRI827

Message to enable or disable has timed out; task aborted.

BRI828

MISP is disabled; task cannot be performed.

BRI829

This application is not resident in the MISP.

BRI830

Basecode application is in transient state; try the command again later.

BRI831

MISP has sent an undefined response.

BRI832

Protocols could not be downloaded to the MISP. Make sure that the MISP is enabled.

BRI833

HDLC data could not be downloaded to the MISP. The accompanying number indicates the error code returned from the message handler.

BRI834

Hardware fault has been detected on the MISP.

BRI835

MISP failed to process "Protocol Download Request" message.

BRI836

All applications must be disabled before disabling basecode.

BRI837

MISP basecode disabled without disabling the application(s); will attempt to release application's resources but an INIT might be required if problems persist.

BRI838

MISP could not be accessed.

BRI839

MISP failed to remove requested application.

BRI840

Enabling or disabling process took too long; process was aborted.

BRI841

Dedicated channel to the packet handler could not be established.

BRI842

Dedicated channel to the packet handler could not be disconnected.

BRI843

MISP basecode application failed; will try again in 0.5 second.

BRI844

Application software should be downloaded after enabling is completed by using Network and Peripheral Equipment Diagnostic Program LD 32. The download cannot be accomplished as long as LD 32 is active. Exit the program before starting the download.

BRI845

Enabling process was aborted and application firmware was not downloaded. Check to see that the firmware is present on the diskette and the diskette is inserted in the disk drive. Also the MISP may be busy updating the flash EPROM.

BRI846

Application cannot be automatically enabled. Five tries to download the application firmware failed. Enable it in the Network and Peripheral Equipment Diagnostic Program LD 32.

BRI847

Application loadware has been removed from the MISP.

BRI848

Application is not identified with a socket ID, no communication with the MISP.

BRI849

Task aborted. Meridian 1 cannot access the application information block on the MISP.

BRI850

DSL parameter cannot be downloaded because one or more pointers are nil. Try manually enabling the DSL to force the parameter to download. If this doesn't work, remove the DSL and then recreate it using ISDN BRI Service Change Program LD 27.

BRI851

DSL parameter cannot be downloaded because Meridian 1 could not send message to the MISP.

BRI852

DSL parameter cannot be downloaded because no call register is available.

BRI853

DSL parameter cannot be downloaded because the download request message was invalid.

BRI854

DSL parameter cannot be downloaded because the specified TSP is invalid.

BRI855

DSL parameter cannot be downloaded because the MISP did not acknowledge the download message.

BRI856

DSL parameter cannot be downloaded because download procedure timed out.

BRI857

DSL parameter cannot be downloaded because the MISP and/or application is disabled.

BRI858

Line card does not exist, thus a dedicated connection cannot be established or removed.

BRI858

Only an ISDN BRI card can have a dedicated connection.

BRI860

Software BUG.

BRI861

MISP is disabled, could not make a dedicated connection.

BRI862

No path available to setup a D-channel dedicated connection.

BRI863

Cannot send a message to the MISP to update the HDLC.

BRI864

Cannot send a message to the MISP to update the HDLC.

BRI865

Software BUG. ISDN PRI pointer is nil.

BRI866

PRI is disabled and a dedicated connection cannot be made.

BRI867

Dedicated connection cannot be established or removed because it is not in PRI MODE.

BRI868

B-channel is busy.

BRI869

A B-channel is not available to establish a dedicated connection.

BRI870

Call Register is not available to establish a B-channel or B_D-channel dedicated connection.

BRI871

A dedicated connection cannot be established because there is no available path between the Network and the ISDN PRI.

BRI872

Invalid number for the specified B-channel or B_D-channel type.

BRI873

Unable to establish or remove a dedicated B-channel or B_D-channel connection because the ISDN PRI is disabled.

BRI874

Unable to establish or remove a dedicated B-channel or B_D-channel connection because the channel is in disabled state.

BRI875

Unable to establish or remove a dedicated B-channel or B_D-channel connection because the channel is in maintenance busy state.

BRI876

Specified B_D-channel is busy.

BRI877

B_D-channel dedicated connection cannot be established because there is no available path between the MISP and the ISDN PRI.

BRI878

Cannot send a message to the MISP to update the HDLC about the B_D-channel.

BRI879

Cannot send a message to the MISP to update the timeslot mapping for the dedicated B_D-channel connection.

BRI880

Cannot establish D-channel, B-channel, or B_D-channel dedicated connection because the MISP application is disabled.

BRI881

Cannot establish B_D-channel dedicated connection because the B-channel on the ISDN PRI is busy.

Basic Rate Interface Trunk messages (BRIT)

BRIT messages are equivalent to PRI messages as described in the *X11 Software Guide Including Supplementary Features* (example: BRIT241 = PRI241).

Background signaling diagnostic messages (BSDxxx)

BSD800

Command is being executed.

BSD801

Call register not available. Wait and try the command again. If the problem persists, increase the number of call registers using Configuration Record Program LD 17.

BSD802

Specified card slot not equipped.

BSD803

Specified card not equipped.

BSD804

Time slot is busy.

BSD805

Time slots are not available.

BSD806

Loopback channel is not available.

BSD807

Timeout is waiting for network response.

BSD808

DSL is busy.

BSD809

DSL is in maintenance busy mode.

BSD810

Specified Controller card does not belong to the specified Network card. Make sure you entered correct shelf number.

BSD811

Terminals not installed at specified DSL.

BSD812

Digital terminal not available at specified terminal number.

BSD815

Wait for the prompt.

BSD816

Tags not available. Stop a test by executing XSTP command and try again.

BSD817

Generate message could not be sent. The system is temporarily out of message registers. Wait and try again.

BSD818

Detect message could not be sent. The system is temporarily out of message registers. Wait and try again.

BSD819

XMI message could not be sent. The system is temporarily out of message registers. Wait and try again.

BSD820

Last one-shot test still running. Wait until the test is completed or stop the test by executing XSTP 0 command and try again.

BSD821

Tag number has not been assigned to a test.

BSD822

Database error. The pointer is nil.

BSD823

One-shot status not printed. Use XSTA command to get the test status.

BSD824

Card slot is disabled.

BSD825

Card is disabled.

BSD826

DSL is disabled.

BSD827

Message could not be sent to the MISP application. Check the MISP and the application status.

BSD828

Message could not be sent to the MISP because the MISP express output buffer is not available.

BSD829

Loopback cannot be performed on a non-ISDN BRI line card.

BSD830

Loopback can only be performed between an MISP and one of the ISDN BRI line cards assigned to it.

BSD831

MISP does not respond; use XSTP command to terminate test.

BSD832

Tags suspended; use XSTP command to terminate test and check the cases where the Network card did not acknowledge reception of the test message.

BSD833

Message cannot be sent to the MISP. Check the MISP status.

BSD834

Line cards not defined at the specified DSL.

BSD835

All DSLs must be in disabled state.

BSD836

Card slot is not an MISP.

BSD837

Test case number does not match test case data.

BSD838

Command not applicable to Network/DTR card.

BSD899

Input invalid. Please re-enter the input value.

Software error monitor messages (BUGxxxx)**BUG5438**

DSLs already configured have reached the limit.

BUG5439

Logical terminal IDs already specified have reached the limit.

BUG5441

D-channel dedicated connections could not be established.

BUG5442

Messages could not be sent to the line card.

BUG5443

Source invalid to ISDN BRI call processing module.

BUG5444

ISDN BRI call processing message timeout is in the wrong state.

BUG5445

B-channel specified by the MISP is used by another call and cannot be released.

BUG5446

Information element is missing in incoming ISDN BRI call processing message.

BUG5447

Information element is invalid in the incoming ISDN BRI call processing message.

BUG5448

ISDN BRI call processing packet message length is invalid.

BUG5449

ISDN BRI message handler failed to send a message.

BUG5450

Main progress marker (Mainpm) is invalid after digit translation; call is cleared.

BUG5451

Address translation cannot be performed on the specified DSL.

BUG5452

New call reference cannot be obtained.

BUG5453

ISDN BRI call cannot be connected because of incompatibility of the B-channel with the incoming call type.

BUG5454

Message CR cannot be found for incoming PRI call destined for an ISDN BRI terminal.

BUG5455

ISDN BRI call cannot be held; protected card pointer is nil.

BUG5456

ISDN BRI call cannot be retrieved; protected card pointer is nil.

BUG5457

Problem encountered when releasing the call.

BUG5458

Source invalid for BRI_INTERACT procedure.

BUG5459

Source invalid for BRI_MAINT module.

BUG5460

Source undefined for BRI_MAINT module for the MISP.

BUG5461

Source undefined for BRI_MAINT module for the line card.

BUG5462

Card type expected is ISDN BRI line card.

BUG5463

Protected card pointer is nil.

BUG5464

Non-key function data pointer is nil for DSL data.

BUG5465

Address translation failed for the DSL.

BUG5466

MISP protected pointer is nil.

BUG5467

MISP unprotected pointer is nil.

BUG5468

MSDL/MISP pointers cannot be set up.

BUG5469

Timeslot assignment controller data failed to be downloaded.

BUG5470

HDLC data failed to be downloaded.

Equipment data dump messages (EDDxxx)**EDD114**

DSL data cannot be found.

EDD115

USID map cannot be found.

EDD116

Protected MISP data block cannot be found.

Error monitor messages (ERRxxxx)**ERR5157**

ISDN BRI call is in wrong state; call attempt is aborted.

ERR5158

ISDN BRI call reference invalid.

ERR5159

ISDN BRI B-channel status out of sync between Meridian 1 and the MISP; call attempt is aborted.

ERR5160

ISDN BRI calls exceeded the limit for the DSL.

ERR5161

ISDN BRI call cannot be connected because of incompatibility of the call type with the B-channel.

ERR5162

ISDN BRI call cannot be connected because a call register cannot be allocated.

ERR5163

ISDN BRI call processing message has timed out.

ERR5164

ISDN BRI B-channel is in maintenance busy state.

ERR5165

Message received from invalid card slot.

ERR5166

Message received from wrong ISDN BRI line card.

ERR5167

Message received from ISDN BRI line card is invalid.

ERR5168

Output buffer not available to send scan and signal distributor (SSD) message.

ERR5169

ISDN BRI line card reports message problem.

Network link messages (LNKxxx)

LNK101

Incorrect card type. The card type must be a TERM, DTI, DLI, or MISP.

LNK133

Wrong password entered for the MISP command.

Network and peripheral replacement messages (NPRxxx)**NPR509**

DSL configuration download failed.

NPR510

DSL is already enabled.

NPR511

Shelf contains at least one ISDN BRI card, wait about 45 seconds to enable the loop.

NPR512

The command is being executed.

NPR514

Unit cannot be enabled.

NPR515

ISDN BRI line card did not send activation acknowledgment for DSL.

NPR516

ISDN BRI line card self test can not be invoked.

NPR517

Line card self test failed; line card not enabled.

NPR519

Line card does not respond.

NPR522

MISP does not respond; command is aborted.

NPR533

“Line Card State Change” message not received from the MISP.

NPR534

“DSL State Change” message not received from the MISP.

NPR551

Message cannot be sent to the MISP because of invalid message or conditions.

NPR555

Express output queue is full.

NPR556

MISP output buffer is not available.

NPR561

Input valid only for the MISP card

NPR562

Message cannot be sent to the line card.

NPR570

Application information blocks cannot be read from the MISP.

NPR605

Application is not configured on this MISP.

NPR606

Trunk DSL needs to be in RELEASED state.

NPR607

Trunk DSL needs to be in ESTABLISHED state.

NPR608

Trunk DSL needs to be in TEST mode.

NPR609

Trunk DSL needs to be in REMOTE LOOPBACK mode.

NPR611

Trunk DSL needs to have TKTP = TIE and IFC = SL1.

NPR612

Trunk Application is DISABLED.

Network and signal diagnostic messages (NWSxxx)**NWS620**

Express output queue full, CPU can not send the message to the MISP.

NWS621

MISP output buffer not available.

NWS622

Message cannot be sent to the MISP because of invalid message or conditions.

NWS623

Message cannot be sent to a line card.

NWS624

Shelf contains at least one ISDN BRI card, wait about 45 seconds to enable the loop.

NWS625

Database error. Database protected pointer is nil.

NWS626

Self test command only applies to the MISP network cards and ISDN BRI line cards. Make sure you specify correct card.

NWS627

Self test can only be invoked if card is disabled.

NWS628

Self test can only be invoked if line card is disabled.

NWS630

Card slot is unequipped.

NWS631

Card slot does not respond.

NWS632

Self test failed.

NWS633

MISP status is undefined.

NWS635

Line card does not respond.

NWS636

MISP self test cannot be activated.

NWS637

Self test passed.

NWS638

Unit is not equipped.

NWS639

TEI test could not be performed.

NWS640

MISP does not respond.

NWS641

Command cannot be performed on the MISP; use Network and IPE Diagnostic Program LD 32 to check the MISP.

Service change messages (SCHxxxx)

SCH0000

Illegal input character.

SCH4127

Signaling/pad category table cannot be removed because there are references to this table. Remove references to this table before OUTing the table.

SCH5366

Protocol group already exists.

SCH5367

Protocol group does not exist.

SCH5368 x

Protocol group x cannot be removed. Remove the DSL associated with this protocol and try again.

SCH5369

MISP has already been enabled.

SCH5370

MISP has not been configured.

SCH5371

Not a PRI. Enter a PRI number.

SCH5372

I/O polling table is full.

SCH5373

MSDL/MISP index cannot be obtained because the table is full.

SCH5374

Warning: B-channel is not configured for packet data transmission.

SCH5375

Specified PRI channel is busy. Enter an idle PRI channel number.

SCH5376

Number of DSLs exceeded the defined system limit.

SCH5377

Not a MISP. Enter a MISP card slot number.

SCH5379

MISP supports only four ISDN BRI line cards.

SCH5380

DSL# 7 of this ISDN BRI line card cannot be configured. D-channel is configured for packet handler

SCH5381

Non superloop is not allowed. Enter a superloop number.

SCH5382

Disable the card by removing all the DSLs on the card.

SCH5383

ISDN BRI line card already configured.

SCH5384

ISDN BRI line card has not been configured.

SCH5385

Non ISDN BRI line cards are not allowed.

SCH5386

Non DSL terminal number (TN) is not allowed.

SCH5387

Disable the ISDN BRI line card to configure its DSL.

SCH5388

Remove all DSLs on the line card to change the card type.

SCH5389

DSL number is out of range. Enter a number from 0 to 7.

SCH5390

DSL data block has not been created. Configure the DSL.

SCH5391

DSL data block has already been created.

SCH5392

B-channel packet data option not enabled. B-channel packet data option must be configured in MISP.

SCH5393

Warning: Make sure the call type matches the changed DN and TSP.

SCH5394

Specify at least one type of call, which can be VCE, DTA, or PMD.

SCH5395

System contains additional LTEIs.

SCH5396

Remove all TSPs from the DSL before removing the DSL.

SCH5397

Enter three values LTG and LTN for Logical Terminal Id and one for TEI.

SCH5398

LTIDs exceed the specified system limit.

SCH5399

LTEIs exceed maximum limit allowed for this DSL.

SCH5400

LTEI has not been configured.

SCH5401

Warning: Make sure MCAL value does not exceed the maximum number of calls for a DSL specified in TSP.

SCH5402

System contains additional configured TSPs.

SCH5403

ISDN BRI DN is not allowed.

SCH5404

MISP not allowed.

SCH5405

A non-ISDN BRI terminal can not be configured for the specified ISDN BRI line card.

SCH5406

This DSL cannot be configured because a D-channel is used for packet handler.

SCH5407

LTID TEI pair database block has not been configured.

SCH5408

Enter TEI you wish to delete.

SCH5409

Enter the call type you wish to delete.

SCH5410

Address translation failed.

SCH5411

This is not a DSL line. Enter the TN of a valid DSL line.

SCH5412

USID map is not defined.

SCH5413

TSPs have reached the allowable limit.

SCH5414

TSP is already configured.

SCH5415

TSP does not exist. Assign a configured TSP.

SCH5416

USID has not been removed.

SCH5417

TSP does not exist.

SCH5418

Define at least one SPID.

SCH5419

SPID has not been configured.

SCH5420

Input has exceeded the maximum allowed SPIDs per TSP. Specify a maximum of 8 SPIDs for each TSP.

SCH5421

DN input must be specified.

SCH5422

DNs exceed the allowed limit.

SCH5423

DN database block does not exist.

SCH5424

DN does not exist for the specified TSP.

SCH5425

DN has already been deleted.

SCH5426

Invalid input. Check the input value and try again.

SCH5427

Call type is not defined in the DSL.

SCH5428

Default DN must be entered.

SCH5329

Warning: Default DN has not been defined.

SCH5430

Insufficient memory.

SCH5431

DN tree is corrupted.

SCH5432

DN is not an ISDN BRI DN. Specify an ISDN BRI DN.

SCH5433

DN is already defined for a different DSL.

SCH5434

USID does not exist. Specify an available USID.

SCH5435

SPID has been defined in the TSP.

SCH5436

SPID value is too long. Enter correct SPID value not to exceed 9 characters.

SCH5437

TSP has not been defined for the specified SPID.

SCH5438

Card is not configured in the MISP data block.

SCH5439

ISDN BRI package is not installed in the specified card slot.

SCH5440

Card slot has already been assigned. Specify a card slot.

SCH5441

Cannot remove MISP because at least one BRI SILC/UILC line card remains configured in software.

SCH5442

ISDN BRI line card cannot be moved or swapped. Make sure all the DSLs have been removed from the card first.

SCH5443

ISDN BRI DN cannot be a customer night DN.

SCH5444

Card slot is used by MISP.

SCH5445

ISDN BRI DN cannot be a hotline DN.

SCH5446

ISDN BRI DN cannot be a night DN.

SCH5447

ISDN BRI DN cannot be a customer night DN.

SCH5448 1

Disconnect dedicated D-channel connection command for the specified MISP 1 has failed. Check MISP status.

SCH5449 1

Send DSL or line card status command for the specified MISP 1 has failed. Check MISP status.

SCH5450 1

Parameter download procedure for the specified MISP 1 has failed. Check MISP status.

SCH5451 1

B-channel dedicated connection to PRI has failed.

SCH5452 1

Disconnect B-channel dedicated connection to PRI command has failed.

SCH5453 1

Send maintenance pending message to MISP 1 has failed.

SCH5454

Invalid LTID, LTG=15 and LTN=1023 is not allowed simultaneously

SCH5455

DSL has already been configured.

SCH5456

DSL does not exist.

SCH5848

The specified application is not configured on this MISP. Configure the application to the MISP.

SCH5849

ISDN BRI trunk types can only be TIE, COT and DID.

SCH5850

Cannot change these parameters without disabling all associated trunk members.

SCH5851

Interface type must be SL1, 1TR6, NUMR or D70.

SCH5852

Cannot remove BRIL application without disabling the application. Disable the application using LD 32.

SCH5853

Cannot remove BRIL application without first removing all associated DSLs.

SCH5854

The specified route is not an ISDN BRI route.

SCH5855

ISDN BRI trunk package is not equipped on this system.

SCH5856

The new MISP for this card does not have BRIL configured but there is a BRIL DSL on this card. Enter a MISP with a BRIL application.

SCH5857

ISDN BRI route is not allowed if an ISDN BRI Route Packet Handler exists. Use a different route or take out the ISDN BRI Route Packet Handler option on this route before proceeding.

SCH5858

PRI is not supported if the DTI package and the PRI package are not equipped.

SCH5859

A DSL trunk in NT mode must be associated with a route on NET side. Check the Network and User configuration for ISDN BRI route and Network and Terminal configuration on the DSL route.

SCH5860

Protocol group cannot be removed if there are one or more ISDN BRI routes using this protocol set group. Remove the routes associated with this protocol before proceeding.

SCH5861

Cannot remove the BRIT application without first disabling it. Use LD 32 and disable the application.

SCH5862

Cannot remove the BRIT application without first removing all associated DSLs.

SCH5863

The new MISP for this card does not have BRIT configured but there is a BRIT DSL on this card. Enter a MISP with a BRIT application.

SCH5864

BRIL package is not equipped on this system.

SCH5965

The ISDN option must be configured in the Customer Data Block before an ISDN BRI route can be configured. Use LD 15 and enable the ISDN option for this customer.

SCH5866

Either the BRIL or BRIT package is not equipped on this system.

SCH5867

The line card is not an SILC. An SILC line card must be entered if the clock source is to be drawn from an ISDN BRI line.

SCH5899

The appropriate DSL on this card (DSL#0 for PREF or DSL#1 for SREF) must be a trunk DSL. Enter an SILC card with an ISDN BRI Trunk clock source configured on the appropriate DSL, or use LD 27 to configure an ISDN BRI trunk clock source on the appropriate DSL.

SCH5900

The appropriate DSL on this card (DSL#0 for PREF or DSL#1 for SREF) is not provisioned for a clock source. Use LD 27 to change the CLOK parameter on the appropriate DSL to YES. The DSL must first be in TE mode.

SCH5901

Either no card exists in this slot or the slot must be a DTI, JDMI or PRI slot.

SCH5902

Either the card in this slot is not an SILC card or the slot must be a DTI JDM or PRI slot.

SCH5903

Either the appropriate DSL in this slot (DSL#0 for PREF or DSL#1 for SREF) is not a trunk DSL, or the slot must be a DTI, JDMI or PRI slot.

SCH5904

Either the appropriate DSL in this slot (DSL#0 for PREF or DSL#1 for SREF) is not provisioned for a clock source, or the slot must be a DTI, JDMI or PRI slot.

SCH5905

The appropriate DSL in this slot (DSL#0 for PREF or DSL#1 for SREF) is not configured. Use LD 27 to configure the appropriate trunk clock source.

SCH5906

Either the appropriate DSL in this slot (DSL#0 for PREF or DSL#1 for SREF) is not configured, or the slot must be a DTI, JDMI or PRI slot.

SCH5907

The clock on this DSL is referenced in the Digital Data Block. This reference must be removed using LD 73 before the mode can be changed to NT.

SCH5908

The clock on this DSL is referenced in the Digital Data Block. Reference must be removed using LD 73 before CLOK can be changed to NO on this DSL.

SCH5919

The clock on this DSL is referenced in the Digital Data Block. Reference must be removed using LD 73 before DSL can be removed.

SCH5926

The clock on this DSL is referenced by the DTI2/PRI2 system data. This reference must be removed using LD 73 before the mode can be changed to NT.

SCH5927

The clock on this DSL is referenced by the DTI2/PRI2 system data. This reference must be removed using LD 73 before CLOK can be changed to NO on this DSL.

SCH5928

The clock on this DSL is referenced by the DTI2/PRI2 system data. This reference must be removed using LD 73 before this DSL can be removed.

SCH5929

DTI package is restricted. If the BRIT package is equipped, enter TYPE =DTI2 or TYPE = PRI2.

SCH5930

The slot number is not a valid DTI/PRI/MISP slot. Configure the DTI/PRI slot using LD 17 or configure the MISP using LD 27.

SCH5931

The slot number is not a valid DTI2/PRI2 /MISP slot. Configure the DTI2/PRI2 slot using LD 17 or configure the MISP using LD 27.

SCH5932

This MISP is referenced as a clock controller in the Digital Data Block. This reference must be removed using LD 73 before the MISP can be removed.

SCH5933

This MISP is referenced as a clock controller in the DTI2/PRI2 system data. This reference must be removed using LD 73 before the MISP can be removed.

SCH5938

The requested change cannot be processed because the route would be changed to USR side, but here are NT mode DSL members on this route; NT mode DSLs must be on NET side. Remove the NT mode DSLs from this route before changing the route to USR side.

SCH5939

This is not an SILC card. This slot is valid input only for SILC clock references. Configure an SILC clock source at this slot.

SCH6089

Either the MSDL package or the BRIL package or the BRIT package needs to be equipped. You do not have the required packages to continue configuring this data.

SCH6409

A protocol engine active (inactive) interface type is allowed to be changed to another protocol engine active (inactive) interface type only if there is no DSL associated with the route.

SCH6410

The route entered for the BRIE application must have the protocol engine active; the route entered for the BRIT application should not have the protocol engine active.

SCH6412

The new MISP for this card does not have BRIE configured, but there is a BRIE DSL on this card.

SCH6426

The Call Forward External allow/deny is only allowed for ETSI and NI-1 protocol.

SCH6427

Invalid supplementary feature.

SCH6428

Cannot subscribe Call Forward Unconditional for this call type because the DN does not subscribe to this call type.

SCH6429

Cannot delete this Call Forward Unconditional service because it is active now.

SCH6435

Supplementary service is not defined in the database.

SCH6436

Invalid supplementary feature.

SCH6437

There are supplementary services defined in the TSP(s) of this DSL.

System loader messages (SYSxxxx)

SYS4206

Data can only be loaded when PRI2, DTI2, BRIT or BRIL package is selected.

SYS4413

DSL can not be loaded. The number of DSLs exceeds the limit.

SYS4414

Protected storage cannot be allocated.

SYS4415

DSL data cannot be found.

SYS4416

ISDN BRI card cannot be inserted in the slot.

SYS4417

MISP cannot be associated with line card because protected data block for the card does not exist.

SYS4418

MISP cannot be associated with line card because protected card data block for the card does not exist.

SYS4419

USID map cannot be found.

SYS4420

Multiple DSLs associated with the specified ISDN BRI directory number.

SYS4421

Logical terminal IDs exceeds limit on the specified DSL.

SYS4590

BRIT package restricted.

SYS4592

BRIL package restricted.

SYS4593

Either the BRIL or BRIT package needs to be equipped.

SYS4594

BRIL application will not be configured on any MISP because the BRIL package is not equipped.

SYS4595

BRIT application will not be configured on any MISP because the BRIT package is not equipped.

SYS4600

The DTI package is restricted and either the BRIT package is restricted or the DTI2 package is equipped or the PRI2 package is equipped.